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NORMAN J. COLMAN, EDITOR

Published every Wednesday, in Chemi cal building, corner of Eighth and Olive streets, St. Louis, Mo., at one dollar per year. Eastern office, Chalmer D. Colman, 520 Temple Court, New York City. Advertisers will find the RURAL WORLD farm. the best advertising medium of its class in the United States. Address all letters to COLMAN'S RURAL WORLD, Chemical Building, St. Louis, Mo.

While the RURAL WORLD is published at one dollar a year, it has temporarily allowed old subscribers to send actually
NEW OR TRIAL subscribers with their
own subscriptions at fifty cents a year,
in order to largely increase the circulation and influence of the paper. This price is less than the cost of the white paper, presswork, folding, wrapping, mailing and prepaying the postage, saying nothing of any other of the large expenses of main-taining offices, paying salaries and con-ductive couch a paper in a large city. Reducting such a paper in a large city. Renewals, unless accompanied by one or to be at least not a very pressing one in more NEW subscribers must be at one those instances. One has but to go along dollar a year. All names are dropped as oon as subscriptions expire. The month named on the address tag, pasted on each issue, shows the month subscriptions expire, and renewals should be made two or three weeks before, so that names shall not drop out of list. It is gratifying to the proprietor to be able to state, in his half century's experience in conducting this paper, it has never enjoyed the patronage and prosperity it now does. Its them. We are told that to insure crops of circulation is increasing in a wonderful degree, and its advertising patrons, many of whom have used its columns for a quarter or a third of a century, are more than pleased with results. Let all our friends unite and press forward in extending its sphere of influence. It will do for others what it is doing for you, so get others to join the great RURAL WORLD army and receive the same benefit.

The Alton, Ill., Horticultural Society will meet next Saturday, June 8, at Moun Lookout Park, the beautiful residence of Major H. G. McPike, in Alton, Ill. This will be a basket picnic meeting and an who have ever attended one held at the place know that it will be a most enjoyable one. Major McPike cordially invites the RURAL WORLD editors and their norticultural and pomological friends to

THE DROUTH.

A very serious condition with respec to growing crops exists at this writing as will be seen by the notes from corre ndents on page 8 of this issue, and Crop and Weather Bulletin on the A press dispatch from Topeka, Kan.,

in Kansas is broken and that rain has been falling taroughout Central and Eastern Kansas Il night. We trust that before this issue of the RURAL WORLD will have reached its readers rain will have fallen throughout the drouth-stricken district. In the meantime don't give up, even if the oats are ruined and other crops badly injured. There are other quick growing crops for which there is yet ample time to mature. It is the resourceful man that wins in farming as in chased.

EXPENDITURE OF LABOR.

Farmers are usually very careful as to how they spend money, but they are not always so judicious in the way labor is expended. The writer has vivid recollections of long hours spent during a large portion of the summer months weeding alleys and the sides of the high vegetable beds in the garden. This work as faithfully done and hoe and trowel were the only implements that were provided. There was a good garden, but no profit from it. The lettuce bed was large enough to supply a half dozen fam-ilies, and long after lettuce ceased to be relished by the family, that bed was kept

COLMAN'S RURAL WORLD activities, depends for profitable results on the farmer; then, too, even the most on the farmer; then, too, even the most careless management will bring some kind of results, and the fact that absolute failure in all crops is not feared, makes one at least partially satisfied with a "well done," instead of a "best done." One of the hardest working farmers we ever knew, was at all times—from early morn till late at night—literally on the run, but his labors were so misdirected, that despite his hard work, he lost his farm. Of course, this unfortunate man declares "farming doesn't pay." It is well to diligently inquire whether our labor is being wisely and profitably spent. Labor which improves the appearance of the farm is profitable in that it makes ne more contented, and then, if the farm is offered for sale it will bring a better price. Some farm work is of a temporar character, such as was the weeding of th inprofitable farm problems

AERATION OF SOIL

C. D. Lyon expresses some doubt in his which go to show that the necessity seems those instances. One has but to go along the streets of any city with his eyes open to see numerous proofs of the proposition that soil aeration is not as much importance to plant growth as one might infer from first considering the point. Many trees will be seen where practically the whole surface over the root area is seemingly made absolutely impervious to moisture or air from above by a graniplums the best thing to do is to pave the ground under the trees with brick or flag stones. True, the paving is done for the purpose of circumventing the curculio, but the fact remains that it must at the same time prevent aeration of the soil to a considerable extent. Prof. Roberts says in his valuable book,

"The Fertility of Land": "If the soil is compact and the interstices filled with free water or silt, it will not contain enough air for best results, and therefore piowing for the purpose of letting the air enter the ground, as well as to promote y drainage and absorbtion of moisture, may be advantageous. The roots of plants, flike fishes, require air, and although they require only a little, that little is necessary to their life and growth. The soil always contains some air." Just how little air there can be in the soil and meet the needs of the plant roots we do not think the investigators have determined, but we are inclined to the opinion that the amount is so small that natural forces unaided by man will usually make it ample. In other words, we are inclined to question the need of plowing for the purpose of promoting aeration of the soil; yet this is the position taken by Dr. Roberts, Professor of Agriculture in Cornell University. It is a question for the soil of plowing for the purpose of letting the air University. It is a question for further consideration by our readers. Possibly many of us are holding erroneous opinions as to why we plow; and to the excedure in crop growing apt to be wrong.

TARPAULIN.



PART OF THE DAIRY HERD, TENNESSEE EXPERIMENT STATION, KNOXVILLE, TENN.

Another impressive evidence of enterprise and prosperity is good school and church buildings. A progressive people take pride in the appearance of their schoolhouses and church edifices, and in such localities advancement is being made along educational lines. Much has been said relative to rural schools, and yet much more could be profitably remarked if only the words spoken would produce the desired results.

What a vivid picture of progressive life is portrayed by a neatly arranged schoolhouse with a bright interior and exterior, and the series of livelihood.

**Elevites* the negro that he quits manual labor and seeks a place in the business world, and consequently many of his race are not self-supporting, simply from the fact they will not labor, and there is no place that offers for him in a, profession—the handle of a large enough to admit of the handle of a length and many of them would be there next October if I did not disk, harrow and drag the land before I make tobacco hills next week, and do this to the full depth of breaking.

As to forming what is often called a "plow bottom," by plowing at a uniform depth, I will say that we do not engulate the produce the desired results.

When lined up with ar equal number of farm owners, and there who employ them, they will make a fair average. The per cent of unworthy, dishonest and unreliable men among them will not exceed those who follow other means of livelihood.

Now, Bro. Moore, we will notice the

is portrayed by a neatly arranged school-house with a bright interior and exterior, made so by the provision of the necessary facilities, and how much more readily and happily do the pupils advance in educational lore preparatory for usefulness in after life. The remuneration obtained exceeds the expenditure far beyond possible estimate, and is a practical lesson that once learned is of vast benefit to those who judiciously apply its teachings. Bright homes, bright schools, bright chil-dren and bright influences make bright

"go and do likewise" was good and we hope will be heeded.

Effingham Co., Ill.

THAT HIRED MAN QUESTION.

tent that we are, then is our whole pro- Editor RURAL WORLD: I have been without a day's notice a careful reader of the discussions of the
"hired man" problem as presented in the
RURAL WORLD. The hired man is a TARPAULIN.

The harvest season will find the mowers, reapers, rakes and other implements required for cutting and storing hay and grain ready for duty. But how many will provide a tarpaulin? Because it may not be needed, doubt is given the balance of weight and no tarpaulin is purchased.

The farmer who has ever owned one, and who has protected the open stack of grain from the drenching given by that unexpected thunder shower, will fully testify to the profitableness of the investment. Nothing is so discouraging as the hour for beginning, he falls out,

community as neat and commodious are told by those of the more Southern long, crossing the original plowing and dwellings and surroundings, substantial states that a smattering of schooling so an inch deeper. The "open spaces" were improvements, and "everything in or"elevates" the negro that he quits manual their just as the plow left them, many

hood.

A good many years ago a landlady said to me, a comparative stranger, that she liked the idea of regarding all men as rogues and villains until they proved themselves otherwise. I prefer to treat my hands as honorable gentlemen until they break my confidence. Some em-ployers treat their hands as if they were underlings. I aim to put mine on an equality with myself. I pay the maximum wages of our county, and am entitled to the best hands in the county. My experience, covering twelve years, with never less than one and generally two regular hands, to whom I furnish homes, is that a low priced man is the most expensive piece of property I can handle. Loss in time squandered, or in misdirected work in my absence or in loss in live stock or in unnecessary and careless damage to machinery and implements will overreach any reasonably reduction in the wages of the so-called "cheap" hand as compared with an hon-orable man, who knows what is right

work properly and be on hand promptly at the hour for beginning, he falls out, and the place he has failed to fill is taken by another, and the procession goes to have hay or grain ruined in the stack. The labor of the season may be much damaged, or much additional labor required in the opening of a stack to dry which might have be saved by a tarballin.

NOTES FROM THE CLIFF.

NOTES FROM THE CLIFF.

NOTES PRIMAL WORLD. The usual season may be much day at an unusually early hour in the morning, and will work them until night overtakes them. Another begins early and season may be much to the light as have been the old time advocates of deep cultivation. If Mr. Philips were to visit me and look at my hilliside field broken to a depth of four to six inches for the past 20 years, and then look across the springbranch to one farmed by a man who plowed seven to nine inches, he would see no washed guilles in mine, while the neighbor's is an and the morning, and will work them until night washed so badly as to almost prevent a

recisible by the family, that bed was keys
free of weeds. In fact, the entire garden
was planted in the same generous proportions, and less thrifty neighbors were
annually provided from it "free grains" converse was not plant
for nothing."

It he garden had been planted in long
rows and given level culture, much of
that useless and hard work would have
been very indiruous to vegetation. The very may
been most profitable signed and a horse could have done
much that was done.

Yet there is a judicious expenditure of
labor that is profitable. In the majority
of farming communities there is
defined in the same as dry as powder. The common continged
the farming of the surface soil
and the surface soil
in the surface soil
of the family, that is expended in the same generous proportions, and less thrifty neighbors were
annually provided from it "free grains" converse was not plant
grows and given level culture, much of
that useless and hard work would have
been very indurious to vegetation. There
was planted in the same generous proportions, and less thrifty neighbors were
annually provided from it "free grains" converse was not plant and
the specific of an excess and point and
that was done.

Yet there is a judicious expenditure of
labor that is profitable. In the majority
of farming communities there is
the altitude of the surface soil
and a horse could have done
that came up is of a feeble growth and
of a yellowish color. Much of that plant
that came up is of a feeble growth and
of a veglewish color. Much of that plant
that came up is of a feeble growth and
of a plant planting and promoting as an everage hired man some
the full was almost impossible to teleant
for nothing."

It takes a large three was not plant and
the total planting three three was an expense three the foods
and the pouring rain the meetings were field to the car possibly do
the trow to the car possibly do not the corn fields and uncessful gatherings ever held
what is expected of him. The very may
there are profitable under the conting of the

being large enough to admit of the handle

capillary attraction "part of the matter."
You admit that the capillarity of the soil
is "in a measure" broken by the process
of plowing. In the deep plowing capillarity is broken at eight inches from the surface. On the top of the millions of hair like tubes which are to carry up oisture, lays a mass of grass tops, trash and roughly broken sod with an air space nere, and a long tube formed by two over far you shall come, and no farther." Then inless the farmer has implements that will reach deep enough to fine the top soil down to these tubes he is defeating one important object he had in mind when he plowed the land, "conservatism of soil noisture." and all the dust mulch he may make two inches thick at a distance of six inches from a mass of earth unpulver-zied, will avail but little in case of irouth,

plements will overeach any reduction in the wages of the so-called production in the wages of the delegate wages of the delegate wages of the delegate wages of

known agricultural authorities as one of the most enthusiastic and interesting from start to finish which they had ever attended. Particular interest centered around the discussions and speeches of Ex-Governor Hoard and Prof. Shaw on the subjects of dairy and stock huspender. These two well known breeders. bandry. These two well known bpeakers cess, and thanks were expressed to all won the hearts and confidence of the audience from the first inception of the meeting. "The Larger Fer Cent of Profit" and the "Necessity of Changing Mething and the "Necessity of Changing Mething and the programment of the part of the best convention in the history of the organization. It is safe to say that its and the "Necessity of Changing Mething and helpful jects discussed by Ex-Governor Hoard with telling effect, while the subjects of "Growing Beef Cattle" and "How to Make the Cheapest Pork," by Prof. Shaw aroused an equal degree of enthusiasm. aroused an equal degree of enthusiasm.

The subject of sheep husbandry was thoroughly threshed out and many valuable facts concerning this industry were

brought to light, and it is safe to say that as a result of this meeting sheep

Few of the subjects discussed aroused more intense interest than that of the short course in agriculture offered by the University of Tennessee. As the chairman said, it was likely to turn into a regular experience meeting, as every boy who had attended and assessment of the classics and the advocates of the classics and the advocates of the sciences. This contest, than the classics and the advocates of the sciences. This contest, than the classics and the advocates of the sciences. This contest, than the classics and the advocates of the sciences. This contest, than the classics and the advocates of the sciences. This contest, than the classics and the advocates of the classics and the advocates of the sciences. This contest, than the classics and the advocates of the classics regular experience meeting, as every boy who had attended and every farmer who had a son in the course wished to add his testimony to this excellent, cheap and effective means of furnishing scientific combined with practical information to the farmers of Tennessee. It is safe to say that the attendance on the short ourse will double the coming winter and no better evidence could be had to show the value of the work accomplished by the East Tennessee Farmers' Conven-tion or to emphasize how clearly the farmers of this section now realize the

value of education in their work. The subjects of alfalfa and red clover natural environment is what is came in for their full share of discussion, and it was evident from the experience of many that these crops offer great pos-sibilities in Tennessee. The demonstra-tions witnessed on the Experiment Sta-tion farm fully substantiated the ideas presented by practical farmers, and does not adhere strictly to scientific principulations the area of these crops will ciples. To them the ultimate aim is agriculture, horticulture, or some other form of scientific investigation.

The ultra "book-learning" people who will accomplish results of immense value and aid materially in the development of the important stock industries in this state.

Mules for the Present Market Demand" received its share of attention, and the facts brought out concerning this industry were of much value to Tennessee breeders. The natural environment of this state makes this business one of mind and heart more than passing interest and good restudying the practical. suits will undoubtedly follow the discussions of this subject.

NOTES FROM THE CLIFF.

NOTES FROM THE CLIFF.

Editor RURAL WORLD: The usual routine in this country is a late spring, routine in this country is a late spring, and will work them the even along the spring and promoting the growth of weeds. Last spring the rain continued weeds. Last spring the rain continued weeds. Last spring the rain continued with rigid regularity.

It takes an average hired man some

farmer will expect his men to oegin the day at an unusually early hour in the inches, he would see no washed gul-les in mine, while the neighbor's is vession of solid plats of constant and the spring. The spring the rain continued with rigid regularity.

Farmer will expect his men to oegin the day at an unusually early hour in the inches, he would see no washed gul-les in mine, while the neighbor's is vession of solid plats of cows was carefull inspected. The dairy building was in full operation with the manufacture of butter, choese, etc.

Editor RURAL WORLD: The East Tennessee Farmers' Convention, the three days's ession of which recently closed in farmer were delighted with what they same alope.

tion were many and evidenced more than

NATURE STUDY LEADING TO AGRI-

Editor RURAL WORLD: What is na ture study? What are its aims? What principles of education are involved? How

edge that the teaching of the sciences, in stead of lessening the interests in the classics and the humanities, has made it possible for more to be accomplished in

Until very recently, the work in th elementary schools, especially in the ru-ral schools, had been confined to the study of formal things, to the study of man and man's way of conveying thought. Little attention had been given to the study of nature, of physical influences. To center thought in the study of

ature study.

The ultra scientific will say that the aim of nature study is to prepare the way for scientific investigation call it "elementary science" and are in-clined to discredit any nature work that does not adhere strictly to scientific prin-

riculture, horticulture, or some other form of scientific investigation.

The ultra "book-learning" people who see nothing in school work but "culture," and that kind which affects the spiritual and aid materially in the development and that aim which affects the spiritual of the important stock industries in this state.

The subject of "Breeding Horses and Mules for the Present Market Demand" girls, through the study of animal and plant life, into more sympathetic and loving relations with nature, to appreci-ate its beauties and harmonies, and, at the same time through related literature, get culture of mind and heart while

studying the practical.

For him who studies the child as well as the subject, there is vastly more in sions of this subject.

It would not be proper to close this report without referring to the representative nature of the convention, there being farmers in attendance from several states outside of Tennessee, and the attendance being more widely distributed in Tennessee than ever before in the history of the organization. The assemblage being so representative, the dissemination of useful information through the medium of the delegates will have a more farreaching effect than has ever been the case heretofore.

It is safe to say that never before has such a fine array of agricultural talent, and representative newspaper men been dark of power, can be most happily united in another in the subject, there is vastly more in 'nature and culture' lessons than a happy blending of the practical and cultural elements in education. It is a question of method as well as of matter. Nature study exaits the child, the individual. Each child must see and think eaght of the proper visual elements in education. It is a question of method as well as of matter in the subject, there is vastly more in happy blending of the practical and cultural elements in education. It is a question of method as well as of matter study exaits the child, the individual. Each child must see and think eaghing from the representative, the dissemination of useful results of the properties of the properties and cultural elements in education. It is a question of method as well as of matter and cultural elements in education. It is a question of method as well as of matter and cultural elements in education. It is a duestion of method as well as of matter and cultural elements in education. It is a question of method as well as of matter and cultural elements in education. It is a question of method as well as of matter and cultural elements in education. It is a duestion of method as well as of matter and cultural elements in education. It is a duestion of method as well as of matter and elements in education. It is a duestion of method as well as of

state Superintendent of Jefferson City, Mo.

CLEVELAND CO., OKL.—Everything promises a full crop excepting oats. Big crops of fruit of all kinds, and lots of garden stuff. Corn is 45 cents per bushel. Wheat 60, oats 35. Cattle, horses and hogs are bringing good prices. Wheat harvest will begin in eight days; corn is ready to lay by. Many Northern and Eastern farmers coming here and paying \$25 to \$40 per acre for land. The new country to open is only 25 miles due west from here.

MONTAGUE CO., TEX.—Our farmers

The Dairy.

A LIBERAL EDUCATION

is Demanded by Modern Dairying.

Among RURAL WORLD readers there are many who are becoming interested in dairying and are considering the advisability of engaging in this line of farm-ing. We are glad to note this tendency, believing that a development of the dairy will be greatly to the advantage of the state as a whole and to those who take up and follow intelligently this line

We say, "follow intelligently." We have and say again, with emphasis, that while agriculture in all lines calls for the exercise of trained and well-stored minds, in no other line is there more need of such ainds than in dairying. A detailed statement of all the factors, forces and pro-cesses involved in what we speak of under the general term of dairying would probably astonish many of our readers; it would require many volumes in which to record all of the facts, and when completed the record would contain a generous proportion of the sum total of human knowledge. Let us look but briefly at one process,

that of separating the cream from mil by means of a centrifugal separator. This was invented by Dr. Gustav De Laval of Sweden and introduced in Eu-rope in 1879, and in this country in 1881—20 years ago. There are now in daily use hundreds of thousands De Laval sepasands of other makes, and

The invention of the centrifugal sepwas not an accident, but resulted from a knowledge of milk, and that knowledge covered a wide range and included the chemical and physical characteristics not only of milk, but of other

powerful microscope reveals the fact that what appears as cream when the milk is allowed to stand, exists as minute par-ticles of fat floating around in the mass of milk. Now, suppose one were to start with this one fact that is revealed to the the animal and her varying powers of digestion which result in a greater or less oportionate or absolute quantity of fat secreted? How is the mo esirable type and specimen of cow, with reference to quantity and quality of butter fat particles in the milk, obtained? What food will best enable the cow to se-crete a desirable quantity and quality of What climate, soil, methods and processes are best suited to the preparation of the best amount and quality of food which, when fed to the best type and specimen of a cow, will enable her to se-crete the largest quantity and best quality of butter fat in the milk? These questions lead us to the bounds of human knowledge, and yet we have not touched on that phase of the subject where the

If we go back to the first question "What is butter fat?" as a starting point and ask it in this form, What are butter fat particles? it will lead us in another direction. What is the physical and chemical relation of the bu Why do these particles rise to the sur Why do some rise more quickly than others? What effect does tempe on the rising of these parti What is gravity? What What is specific gravity? What is centrifugal e? And here we are again at the hest limits of human knowledge and erstanding, considering a force that holds a universe of worlds in its grasp and yet controls the movem

separator appears on the scene.

To man was given the privilege, not simply of knowing of these facts and but of putting them to hu en he devised a mechanical contrivance by which he could apply centrifugal force -that force that swings the earth arou from milk more quickly than nature, un-aided, would do it. This machine is one the principles involved, the nicety of construction and in the accuracy of operation. A study of the cream separator ought to interest all farmers and be to them a source of pride in that it is an illustration of how high a degree of intelligence finds scope for ac-

with its use of centrifugal force and chemistry in determining the butter fat content of milk; apparatus for testing the

Spring Humors of the Blood

Come to a large majority of people. Probably 75 per cent. of these are eured every year by Hood's Sarsaparilla, and we hope by this advertisement to get the other 25 per cent. to take this great Spring Medicine.

It will sharpen your appetite, cure all stomach troubles, relieve that Its strength as a blood purifier is

demonstrated by its marvelous cures of Scrofula Scald Head All Kinds of Humor Bolis, Pimples Psoriasis Rheumatism Malaria, Eto.

Catarrh All of which are prevalent now.

HOOD'S

Sarsaparilla Will do you a wonderful amount of good. Be sure to get Hood's. teriology in its application to milk and

good bacteria.

All of this adds wonderfully to one's in terest in dairying, and to the opportuni ties for success, for more and more is success becoming dependent upon the de-gree of intelligence with which one fol-

lows his calling. We urge, then, upon our readers, those who are already engaged in dairying and those who are considering the advisabil-ity of doing so, to study the subject as horoughly as opportunities will permit; and he who gets a comprehensive knowledge of dairying will have a pretty liberal ducation.

COWS IN DEMAND.

Editor RURAL WORLD: It is reported to us that the creameries at Flora and Sailor Springs, Clay Co., Southern Illinois, are taking care of all the milk there is in the territory, but there are not enough cows in that territory, nor are they to be had in the immediate vicinity. Possibly you may know of some one that would place a few car loads there and thus do good all round.

J. McNISH,

With Creamery Pkg. Mfg. Co St. Louis, Mo.

WHY DAIRYMEN PROSPER

One reason why the people engaged in dairying are prosperous is because dairying is a cash business. There is no credit with the old cow. You feed her to-day and to-morrow she pays you back in cash. The dairyman doesn't have to tell his hired man that he can pay him when he sells his wheat, or when he sells a bunch or when the peaches are marketed. He has the cash every week or every month. The dairyman need not run a bill at his grocery or anywhere else. His business is a cash business, and he can pay as he goes. This is one of the basic principles of prosperity. Run up no debts pay as you go. It gets a man into the habit of doing business on business ciples, and when he does this he ess on business prinstarted on the road to prosperity, declares "Dairy and Creamery."

Again, the dairy business is a continuous business. It brings in cash every with this one fact that is revealed to the brain through the sense of sight, aided by the microscope, namely, that butter fat exists in fresh milk in the form of fat exists in fresh milk in the form of fat exists in fresh milk in the form of fat exists in fresh milk in the form of fat exists in fresh milk in the form of fat exists in fresh milk in the form of fat exists in fresh milk in the form of fat exists in fresh milk in the form of fat exists in fresh milk in the form of fat exists in fresh milk in the form of fat exists in fresh milk in the fat exists in fa agance in expenditure. When people have lots of money they spend lots, and when the source is cut off they feel it severely. The dairyman's income is more uniform and steady, and he covered his covered by the source is cut off they feel it severely. rocesses that re-milk? What of time and totally strapped at another, but time and totally strapped at another, but has a modest, uniform, continu come, and is thereby made more prosper

Dairying is a safe business and therefore brings material prosperity to a per son or a community. People have been financially ruined by fattening cattle, and, in some instances, by growfinancially ruined by fattening lambs or butter fat? What are the physical and of a man becoming bankrupt in the dairy These other busines times bring a larger profit, but there is large element of speculation about them. The dairy business is almost devoid of It is a rather slow, hum drum sort of business, but it is safe, one can put his money into it with assurance of a modest profit from year to

If crops fail in almost any other kind of farming the farmer is flat, but even if all the dairyman's crops should fail, if he d herd of cows, he can buy all his feed and still pay expenses and have a small profit besides. Dairying may be a little slow, but it is sure.

MAKING PRIZE CHEESE.

that the making of premium cheese de ends very much on the quality of the milk, and after many years of experience I am compelled to admit that there are but a few days in the whole year when all the conditions seem just right for mak ing the finest quality of cheese. In this atitude, a few of these days usually come in May, and a few more in September of October. I am not able to detect thes nditions at the weigh can, but about aroma makes its appearance. But ever this may be destroyed by a few hot days ng room, writes C. B. Merry in "Orang

Heat is applied so as to have the milk warm enough to set as soon as the required amount is in the vat. About one ounce of some good color is added for each 1,000 pounds of milk. The milk is then stirred two or three times in the next ten minutes, when the contents of ence in the lots at the commencement of weighed over 14 to 15 ounces. the vat should be at about 85 or 86 degrees Measure out four ounces of standard rennet extract for each 1,000 pounds of milk and mix with a gallon of warm or odiffer of intelligence intelligence in the state of the farm.

Then we have the Babcock milk tester with its use of centrifugal force and ing until the bubbles begin to show the approach of coagulation, which should occur in about fifteen minutes. Cut the curd lengthwise as soon as it

breaks clean over the finger, which will be in thirty to fifty minutes from the time of adding the rennet. Allow the curd to settle until the yellow spots appear on the whey about the size of a quarter of a dollar. Cut crosswise. Apply the heat gently at once, stirring carefully with the hands until the heat reaches 90 degrees, which should be in about half an hour. After that the stirring may be done utes more. Keep on stirring for twenty or thirty minutes longer, then stir occasion-ally until the acid begins to develop. This may be first detected by the squeak when biting between the teeth. If the acid is coming fast, start the whey at its first ap-pearance, and have the whey all drawn off by the time the threads will pull from one-eighth to one-quarter inch on the hot

at once and keep stirring until the whey runs a stream about the size of a lead pencil, then mix in about one-half of the sait. Stir until the curd begins to be mellow and oily, then add the remainde of the salt, two and one-half pounds to at least fifteen minutes longer, and put to press as soon as convenient.

William Ashauer, of Baltimore, Md., has been fined \$100 and costs for violating

NEW MILK PRODUCT "Plasmon" Tried in Germany as an Army

A new milk product is reported by nal" as follows: Man new industries have been developed in the British isles at the close of the last cen tury. One of the most novel had its birth in the vicinity of Buckingham—namaly that of the manufacture from the milk of creameries, after the butter had been extracted, of a substance known by the classical name of plasm This om the Greek,

neaning "that which gives form." The fresh milk as it comes from the ow is put into a separator, all the cream eing removed by this method. The sep-rated milk is afterward treated so as to coagulate all the proteids of the milk; and tifully smoothed. this coagulated mass is then kneaded and dried at a temperature of 70 deg. centi-grade under an atmosphere of carbolic acid gas. When perfectly free from moistwder which is completely soluble in

As to the economic value of plasmo ent, according to the German government form where the cows had stood. tment for the investigation of foodourishing and sustaining properties to three and a quarter pounds of the finest beefsteak, or to about 10 or 12 pints of

THE SCHMIDT CURE FOR MILK FE-

the Schmidt cure for milk fever, but the daughters. We found the animum matter is of so much importance that it markably docide and as fond of will bear repeating. The following is as published by "Hoard's Dairyman" in an-Let Americans, who turn up their not wer to an inquiry:

Dissolve 2½ drams of potassium iodide a quart of water which has been previously boiled, and keep the solution as nearly as you can the temperature of blood. Then milk every drop of milk from the cow's udder, and clean with soap and water; when dried disinfect the udder and teats with a solution of Zenoleum (1 teaspoonful to a pint of water). Then take a small glass funnel and attach to same a rubber hose about 4 or 5 feet long, affix to the end of this hose an ordinary milking tube, insert the milking tube into the teat and slowly pour in your solution, dividing it equally between the four teats; when this is done apply minutes every hour, until the cow comes to her feet. Do not allow the calf to suck during the time the cow is being treated. If the cow is costive, remove the contents of the rectum by hand. In case of a weak neart, small doses of aromatic spirits of mmonia may be given with water every our; avoid large and bulky dos your patient is not on her feet in 8 or 10 hours, the above dose may be repeated, but it is rarely necessary. This is practically the Schmidt treatment, and is alnost a specific.

ACME STOCK FOOD .- On November 1, 900, sixteen cows from the herd of the Kansas Agricultural College were divided into two lots as nearly equal as possible on the basis of the yields of milk and butter fat for the month of October. One lot (cows fed Acme Food) had the advantage by 212 pounds of milk and 17.4 pounds of outter fat for the month. Both lots were alfalfa hay with a grain ration qual parts of corn chop and bran. addition to this feed, one lot received Acme Stock Food fed according to direc-tions. On December 1 oats took the place of bran in the grain ration of both lots. The results for the three months (92 days) inder experiment are as follows:

COWS RECEIVING ACME Milk produced, pounds...... ...14,271 Test, per cent.... Butter fat produced, pounds.. ... 626.7 Cost per pound of fat produced, EIGHT COWS WITHOUT ACME FOOD.

Milk produced, pounds......14,395 per cent. Butter fat produced, pounds.... 596.9 Cost per pound of fat, cents..... 12.3

The Acme Food lot consumed 136 pounds of Acme Food, which at 11 cents (whole-sale price) amounts to \$14.96. Deduct this from the feed cost and the expense for feed in producing a pound of butter fat is reduced to 11.68 cents. The difference Heretofore in the total production of butter fat can creamery in ence in the lots at the commencement of the experiment, but granting that it is due to the effects of the Acme Food, it

> into two lots as nearly equal as possible, there being only a difference of 1.4 pounds of butter fat in the total yield for the month. All the cows received alfalfa hay States is estimated at 17,500,000; Iowa leads Food in addition. The results for two months (59 days) are as follows:

TEN COWS WITH GLOBE FOOD. Milk produced, pounds......12.784

Cost per pound of fat, cents 11 If the Globe Food be eliminated from this experiment, the cost of producing a pound of butterfat is the same in both lots. The totals for two months show that the cows receiving the Globe Food produced 6.8 pounds the most butter fat. Globe Food sells for 9 cents per pound (wholesale rates). The ten cows consumed 43.3 pounds, worth \$3.89, or a cost of 57 cents for each extra pound of butter fat produced.

The test of these two stock foods indiate that they are worthless for dairy cows accustomed to a good balanced ration. The experience of the Kansas Experiment Station coincides with the ex-perience of other stations where a still

chased at reasonable prices, rather than A CREAMERY FOR SALISBURY, MO. to pay exorbitant sums for so-called stock foods whose merits, to say the least, are D. H. OTIS, very doubtful. Kansas Experiment Station.

Manhattan, Kan. THE COW PARLORS OF HOLLAND.

There is no need of telling you that the Dutch cows are kept clean. No wonder the people of Holland have black-andwhite cows. They must have something white for a standard of cleanliness, says Prof. W. A. Henry. At the time of our visit in midsummer, the place where the cows had stood the winter before was as clean as any parlor in America. The walls had been scoured and painted; the floor had been scrubbed and scrubbed and finally covered with pure white sea sand beau-

Then this smooth sand was made more interesting by the drawing of figures in it with a stick, as a child does when it plays on the seashore. In some houses ure the plasmon is ground into a granular hundreds of sea shells were used for dec-

rating sanded stable floor.

The manure drop was covered with either rattan matting or with rattan and there can be no doubt, when it is known ingrain carpet. In some places the famthat the German government supplies it in very large quantities to the army and navy. As a portable, concentrated nutrible, the dining table standing on the plat-

The better class of farmers in North Holland have gas machines and cook department to the incops, it has been found that one ounce of this powder is equal in with gas, and use it for illuminating purposes. In the higher grade of house the windows are often of plate glass, the furniture solid mahogany, and silver plate with an oleo concern to furnish regularly and fine China are in evidence.

The cows are members of the family, and the choicest pets. When we went to the field to inspect them, the whole fam-C. D. Lyon has told our readers about ily accompanied us, father, wife, sons and Produce Review daughters. We found the animals re-

Let Americans, who turn up their noses at the practical Dutch farmers for keep-ing useful cows in their houses, remember that we have with us fiea-covered, mangy dogs, diphtheria-breeding cats, besides birds of various kinds in cruel captivity.

Harrisburg, Pa., May 29.-Gov. Stone ulates the manufacture and sale of butterine and similar products, forbids oleomargarine from being colored, prevents dealers from selling oleomargarine for butter, and makes it compulsory upon ter shall be the finest June creamery massage to the entire udder for 5 or 10 each dealer to secure a permit from the 2-1b agricultural department before handling

Chicago "Produce" says: It was in Pennsylvania where the oleomargarine interests threatened to have the workingmen marching on Harrisburg in an army, if the legislature persisted in its attempt to pass the Snyder-Harris bill. The same subsidized agents of the labor organizations who appeared at Washing-ton in opposition to the Grout bill went before the committees of the Pennsylvania legislature to endeavor through their sold services to convince the mem-bers that the laboring men were against CONDIMENTAL STOCK FOODS FOR any measure which discriminated against oleomargarine, but as was the case at Washington, the legislators saw through their filmsy gauze, and their presence cut

no figure. The attempt to play labor against the farmer in this fight against fraud will prove to be a boomerang. And the man-ner in which the senate of Pennsylvania has taken up this bill will convince gress of the fact that there is nothing in this manufactured and subsidized how from the laboring classes.

What is done in Pennsylvania can be the dairy forces are well organized and handled. The oleomargarine fraud does not appeal to politicians who heart the welfare of the country. Dairymen throughout the country wil

take heart at the manner in which the fight in Pennsylvania has been handled.

DAIRY DOTS

The handling of skim milk is the most unsatisfactory part of the creamery business. Most creamery men for this hall with delight the advent of the 4.13 separator, which relieves them of the onus ngst the patrons, and of k the skim milk sweet.

New dairy law of Oregon requires full weight and also that every roll be wrap-ped in a paper labeled "Oregon Cream-ery Butter, Guaranteed Full Weight." Heretofore through fierce com

would make the extra butter fat cost 48 this country the owners come very far cents per pound.

GLOBE STOCK FOOD.—Taking the firstly, from the lack of care and judgrecord for the month of January as the ment in the breeding and selection of basis, a herd of twenty cows was divided into two lots as nearly equal as possible, agement in the feeding and care of the COWS.

The total number of cows in the United month. All the cows received alrain may for roughness and equal quantities of corn-and-cob-meal and oats for the grain ration. One lot received the Globe Stock Food in addition. The results for two ry production is estimated at \$461,600,000. Add skim milk, etc., and aggregate value is swelled to \$500,000,000. A good many farmers waste a good por

tion of their skim milk, under the im-pression that it is not worth the trouble it takes to save it. This is a mistake. It properly fed to calves, hogs or poultry, it is worth anywhere from 10 to 30 cents a hundred, according to prices of the animals fed. With calves, best results are had by feeding the milk sweet; with pigs and chickens it is not so important.

The question of breeds and breeding ence of opinion; but the matter of testing now so simple that there is little excuse for going on with our work blindly or with inglorious uncertainty, and if by testing we find that there are inferior producers in the herd consuming as much food as the superior producers, it is clearly in order to insist on their expulsion and the substitution of a more profitable machine as soon as practicable.—Dairy and Creamery.

periment Station coincides with the experience of other stations where a still larger number of these stock foods have been tested. When financial gain is the object, it will pay the farmer to confine himself to those feeds that have been thoroughly tested, whose merits are known, and which can be raised or purpose to the station of the saling separators. If you are milking one cow or more send for them.

Rudolph Miller, our new creamery man, factory building near Mr. Rolling's machine shop to get it ready for his machin-ery for which he is looking on every train. He hopes to open up one day next week, but doesn't know exactly yet, but by the 1st of June he aims to have it in good working order. He wants all who can to see him at the above named place. He wants to give instructions as to how you should handle milk. He will want the milk delivered every morning, fresh, clear and sweet. He will tell you how to keep has made arrangements with our hardware dealer to furnish cans at a small profit. Mr. Miller will take milk in any we like the way he takes hold of this business, and we believe it will be a suc cess all around.—Salisbury (Mo.) Press Spectator.

FEEDING OLEO TO CIRCUS MEN.

An interesting story came to light whe Department found oleomargarine amons the camp supplies of Forepaugh's circus while it was exhibiting last week in Brooklyn. From some information that reached Commissioner Kracke he sent his men up to the circus and they found two agers were arrested and at once pleaded guilty and paid a fine of \$25 and cost. They admitted having made a contract enough oleomargarine to feed 72 em-ployes. A promise was given to use no more of the imitation goods while the circus was in New York State.-New York

AN OLEO MAN FINED.

Chicago, Ill., May 27.-Having pleaded guilty to operating an illicit oleomargar-ine factory, Albert T. Dow, proprietor of the Fertile Valley Creamery Company 2334 State street, was to-day fined \$10,000 court. Dow is said to have cheated the government out of \$40,000 in revenue, pay ment of which he evaded. This is said to be the heaviest fine ever imposed in a federal court.

125,000 LBS. BUTTER FOR NAVY.

Pettit & Reed Co. of this city secured the contract from the government to sup-ply the navy department with 125,000 lbs. of butter. The stipulation is that the but with sawdust filling. The contract pric was \$30,625, or 241/2c per pound. There wer other bids from New York, Philadelphia Newark, Washington and St. Albans, Vi New York Produce Review

THE FAMOUS MANUFACTURING COMPANY, Chicago, start their season's advertising with this issue of our paper These people are the manufacturers of the famous Champion Baling Presses, the largest and most complete line in the world, which are so well and favorably known and so widely used. Read their advertisement on another page and og before buying a press of any kind. I will most likely pay you to do so.



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S 990

Horticulture.

SHOOTS.—I do this when they are two in these until the next spring, then plant to three feet high. I have pinched most out where you wish to fruit them. If of mine already. The varieties that grow grown well the strawberries will from suckers I don't pinch at all. It strong enough to show what they may might do with the strong growing varie-ties, but growers don't process. ties, but growers don't practice it as a

TAKING CARE OF GRAFTS .- From my earliest work with trees, the doctrine was taught that grafts should be cut in the winter and be packed away in sand or sawdust in the cellar. I practiced it for more than half a century, and now I have come to the conclusion that it is iderable trouble for nothing. This spring is the third season that for out-door grafting I have found the best plan to to cut grafts from trees, as I want them to set in other trees. Chestnuts, that were mostly a failure with grafts cut early, are quite a success this season when set the same hour they were cut.

LIQUID SPRAYING OR DUSTING .-One asks which is the better method of protecting fruit from insect ravages. Either, if properly applied, will answer. It is simply a question as to which is the east trouble, and labor. I am trying and may report on the result. Where only a few extra fine plums are set, and they are already stung, I at times crush the egg with my thumb nail. If no rain a few days, it will heal up. When the curculio comes along and sees the puncture, it will pass by, not knowing that its work has been spoiled.

THE BIRDS! THE BIRDS! What a pleasure these feathered creatures are to us! A cardinal grosbeak and a chippy nests not two feet apart on ar Austrian pine-a few rods from where now sit. On a pear tree in the garden a summer red bird is building a nest, and on a sycamore near the house a Baltimore priole family has set up housekeeping The blue martins, after a fight with the European sparrows, helped by us with the shotgun, are established. Robins, jaythrushes, cat-birds, chats host of others are all around us.

THE STRAWBERRY CROP.-We have had no soaking rain for nearly a monthonly a few little showers; yet with all this drought and great heat, my plants up to this time show well. I never had a more promising prospect, but now comes the test, and unless we get rain soon, the crop will be badly crippled. Here comes the advantage of good mulching, for wherever this is thickest the ber-

BORER.—Now is the time to guard against this pest, which destroys more trees in this part of the country than all Numerous remedies are given, all of which, if properly applied, will answer, but their use is too often neglected. One of the simplest and surest preventives is to wrap the trees with thick paper in the latter part of May or early in June. Remove the earth from the base of the tree one inch deep, then wrap the paper around from the bottom 15 inches. Replace the earth, tying the paper at the bottom and again at the top. By the time this paper gives way the season for the female borer to lay her egg is past, and your trees are safe for one year. This is not nearly as much trouble as to cut the worms out after they are once in the tree, and the tree is not injured. While knowing this to be a sure remedy, I myself don't al-ways get it done, and have to lose trees. The curculio and I have a battle, and which will come out victorious is to be I find that dusting the trees ammond's slug shot in the morning while the dew is on promises to be

BLACKBERRY, RASPBERRY AND STRAWBERRY SEEDS.—Mr. Luther S. Rogers of Pike Co., Mo., wishes to know how to get the seeds out of blackberries, raspberries and strawberries for planting, and when and how to plant them. Some say wash out the seeds, dry them

and plant the following spring. I never tried this method. My plan is to take the ripe fruit, and mash the berries out thin. so that the seeds are well spread out in the pulp; then have a box (quite a shalone will do) and pack firmly good soil in it, up to within an inch of the top. Spread the mashed berries on it and cover one-quarter of an inch. Keep the soil moist. Cover with a glass and place

Cumpathu **20mham**

Is a good thing for the young husband to give the young wife. But sympathy will not abate one jot of her nervousness or lift her to that plane of sound health where alone the wife and mother can find happiness.

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meets every womanly want and need. It tranquilizes the nerves, restores the appetite and induces refreshing aleep. Its use previous to maternity makes the baby's advent practically

gives the mother abundant autrition for her child. "Favorite Prescription" is a woman's medicine and has no equal as a cure for womanly diseases. It establishes regularity, dries weakening drains, heals infiammation and ulceration and cures female weakness.

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"It affords me great piesawe to be able to say

as good" for weak and sick women.

"It affords me great pleasure to be able to say a few words in regard to the merits of Dr. Pierce's Favorite Prescription and 'Golden Medical Discovery,' writes Mrs. Flora Ara, of Dallas, Jackson Co., Mo. "I was tempted to try mother. At an early age of married life I was greatly bothered with painful periods, also a troublesome drain which readered me weak and until for work of any kind. I became so this there was nothing left of me but skin and bone. My husband became alarmed and got me a bottle of 'Favorite Prescription. After he aw the wonderful effects of that one he got two more, and after I used those up there was no more pain, and I began to gdis in flesh very sapidly."

Dr. Pierce's Common Sense Medical

pr. Pierce's Common Sense Medical Adviser is sent free on receipt of at one-cent stamps, to pay expense of mailing only. Address Dr. R. V. Pierce, Buf-

up, which may not be as soon as you wish. When the plants are an inch high fill in another fourth of an inch of soil.
When they are two inches high they HORTICULTURAL TALKS.
When they are two inches high they should be potted in thumb pots, which is the smallest sized ones. Nurse them strong enough to show what they may be. Even the raspberries and blackberries may fruit some. If you plant of the best varieties you may get something valuable SAMUEL MILLER. out of them. Bluffton, Mo.

TRAPS CATCH GOOD AND BAD.

Editor RURAL WORLD: I am grov ing fruits on a small scale and am using a moth catcher to destroy the insects Noting that Prof. J. M. Stedman thinks the traps catch the good insects only. I will enclose a few that I caught, and ask you to find out if any of them were bad ougs before I made them good ones T. L. DENNY. Newton Co., Mo.

Mr. Denny does Prof. Stedman an in-ustice in saying that he thinks the trape catch the good insects only. He has taker no such position, but instead, has said that the traps do not distinguish between the good and the bad.

ceived from Mr. Denny to Miss Mary E Murtfeldt, one of the best entomological authorities. She reports as follows: Editor RURAL WORLD: I have

amined with all possible care the collect tion of insects you forwarded to me There are specimens of, or fragme 25 insects which are as follows: "stinging flies" (Ichneum amples of Sp?), good insects; four May beetles (Lachnosterna fusca), bad insects; three Tipula files, bad or indifferent; one apple tree pruner (Elaphidion villosum), bad; two cannibal bugs (Reduvius Sp?), good; two Aretia moths, bad; two cutworm moths, bad; two small scavenger beetles, good; two leaf eating bugs, bad; one field ricket, bad or indifferent.

There were not only no codling moths but not even any of the small species which by the uninitiated are so ofter mistaken for the codling moth. There were no curculios of any species. The capture of the apple tree pruner and the cricket is somewhat unusual. The list is quite evenly balanced between the "good" and "bad" species

MARY E. MURTFELDT. Kirkwood, Mo.
Professor E. P. Felt, state entomolo

gist of New York says:
"Information has just come to me from
a fellow entomologist to the effect that a seem safest. Sometimes one good certain manufacturer of trap-lanterns semakes the difference between a full cured his partial indorsement of his apind only a half one. May 19 we had paratus. The letter of indorsement was properly quoted at first, but now, I am informed, the restrictive phrases have THE ROUND-HEADED APPLE TREE been omitted, and the professor is made to appear as though recommending the device for all insects.

"I wish to state that money invested in

trap-lanterns of various forms, including those which have attractive sweets or other fluids, phosphorescent paints and the like, apparently to make them more effective, is a good investment only in a very few special cases, and before buying them the advice of an entomologist should always be sought. Some of these trap-lanterns catch many insects; unfor unately most of them are of comparatively little economic importance, and the trouble is to get a device which will capture large numbers of the destructive species.

a practical means of controlling many inect pests. Beneficial as well as injurious insects are captured, and some pests, like the codling moth, are taken in very small numbers. Farmers are therefore advised to go very slow in buying trap lanterns,

ODDS AND ENDS FROM MAPLE GROVE.

Editor RURAL WORLD: Apples will be about a half crop. The bloom was good, but the apples failed to set. Strawberries are ripening and are a full crop All other fruits promise a normal crop.
Spraying has been more general here
this season than ever before. I am using the new insecticide, white arsenic, and so far I am well pleased with results

Twig or fire blight on apple trees, which was unusually bad here last year, has made its appearance again, and threatens to be even worse than last year.

Among the newer grapes I am well pleased with the Iowa. It is tender and a little shy in bearing, but its beautiful golden color and fine flavor make it de-

sirable in any collection for home use.
Watch the grape vines, berry bushes and young fruit trees in their summer growth and shorten or cut out here and growth and

peach tree borer from now till October.
The best way to get them out is with a sharp knife and a short piece of wire.
Keeping the ground clean around the tree the state of the sharp knife and a short piece of wire.

Keeping the ground clean around the tree is a good preventive.

I can understand the delight with which Brother Miller cares for his horticultural pets. To bud or graft or create by any mode of propagation of fruit plant and nurture it to successful fruit bearing is a work that brings us into closer communication with nature and nature's God than any in which we could possibly engage.

ent and more especially of the future, is the one who produces quality, not quantity, and who markets it honestly and in as nearly a perfect condition as to package, rippeness atc. as yearstly. to package, ripeness, etc., as possible.

In my own county I have witnessed the planting of numerous orchards in the past ten years, and I do not believe five per cent of these plantings will average the part of these plantings will average the property of the second section of the second section as are: Jackson, Vernon, Newton, Lawrence, St. Clair, Lafayette, Benton, Greene, Taney, Wright, Laclede, Camden, Moniteau, Cass, Barton, McDoneld Communication of the S. W. division are: Jackson Vernon, Newton, Lawrence, St. Clair, Lafayette, Benton, Greene, Taney, Wright, Laclede, Camden, Moniteau, Cass, Barton, McDoneld Communication of the S. W. division are: Jackson Vernon, Newton, Lawrence, St. Clair, Lafayette, Benton, Greene, Taney, Wright, Laclede, Camden, Moniteau, Cass, Barton, McDoneld Communication of the S. W. division are: Jackson Vernon, Newton, Lawrence, St. Clair, Lafayette, Benton, Greene, Taney, Wright, Laclede, Camden, Moniteau, Cass, Barton, McDoneld Communication of the S. W. division are: Jackson Vernon, Newton, Lawrence, St. Clair, Lafayette, Benton, Greene, Taney, Wright, Laclede, Camden, Moniteau, Cass, Barton, McDoneld Communication of the S. W. division are: Jackson Vernon, Newton, Lawrence, St. Clair, Lafayette, Benton, Greene, Taney, Wright, Laclede, Camden, Moniteau, Cass, Barton, McDoneld Communication of the S. W. division are: Jackson Vernon, Newton, Lawrence, St. Clair, Lafayette, Benton, Greene, Taney, Wright, Laclede, Camden, Moniteau, Cass, Barton, McDoneld Communication of the S. W. division are: Jackson Vernon, Newton, Lawrence, St. Clair, Lafayette, Benton, Greene, Taney, Wright, Laclede, Camden, Moniteau, Cass, Barton, McDoneld Communication of the S. W. division are: Jackson Vernon, Newton, Lawrence, Moniteau, Cass, Barton, McDoneld Communication of the S. W. division are: Jackson Vernon, Newton, Lawrence, Cast, Martin Communication of the S. W. division are: Jackson Vernon, Newton, Lawrence, Cast, Martin Cast, Martin Cast, Martin Cast, Martin Cast, Martin Cast, Martin Cast, M

A. D. McCALLEN.

Mothers will find "Mrs. Winslow's Soothing. These countles make this showing: Ap-87rap" the Best Bemear for Children Teething. ples, 90; pear, 78; peach, 95; plum, 90; cher-

Editor RURAL WORLD: We are just now through with our strawberries, and have no reason to complain of the reour entire crop at \$1.25 per crate to S. R. our berries. We anticipate selling our peaches, pears, plums and apples in the same manner, which is the only proper way for a grower to do with his produce.

The peach and plum crops are good, and places there will be a good pear we may have to thin them some. Winesan are also full enough, but all othvarieties will be short. Pear trees are blighting considerably and this may jure the crop to some extent. The eather continues. We have had no rain f any consequence for six weeks.
Fulton Co., Ark. D. S. HELVERN.

TREATMENT FOR THE CANKER

WORM. It is now too late to begin treatment, this season, for the canker worm, on badly infested orchards, but there are any orchards in which the worms are not numerous where considerable future work might be saved by spraying at The only way to combat this pesi cessfully is to begin spraying before the trees bloom, but in case it is just making its appearance in an orchard late spraying may do considerable good, but the work must be done while the worn is still feeding. Orchards which are sup posed to be free from the pest, but ar near infested trees, ought to be watched carefully late in May and early in June for when the worms destroy the foliage on trees where they are numerous the will travel along fences for considerable distances to other orchards.

Thorough spraying with some of the ended below will estroy the worms, but it should not be expected that one application will kil all. It may take several season's work ish the desired result, but ther can be no doubt but the pest may be held in check by using the means advised.

Inasmuch as Bordeaux mixture, which nsists of four pounds each of lime and pper sulphate to a barrel of water, is eeded for apple scab and other fungous seases, the most economical plan is to pray with this mixture, adding sufficient poison to kill the worms. Half a pound of Paris green to a barrel of the mixture will answer, provided the Paris green is pure. Three or four pounds per barrel of Disparene, a proprietary article stated to contain arsenate of lead, may be better for the reason given below. cheaper form of arsenic is found in the of soda, which is made by taking two pounds of commercial white ar-senic and four pounds of carbonate of soda to two gallons of water. To dissolve these materials they are boiled together for about 15 minutes. Take one quart of the solution to a barrel of Bordeaux. If it is desired to use poison alone either enate of lead or Disparene is prefer able, because neither injures the foliage. Arsenite of sods, if used alone, is very injurious to foliage and Paris green is nuite likely to do harm, but either may be safely used in Bordeaux mixture. Two or three sprayings during the season are quite necessary to hold the canker worm in check, and even more to rid a badly "Expensive experiments conducted at Cornell University have shown that the trap-lantern can not be recommended as a practical means of controlling."

Disperses and even more to rid a badly infested orchard of the pest. As a rule, all that can reasonably be expected is to be able to hold it in check.

cured through druggists.
CHAS. E. THORNE, Director, hio Agricultural Experiment Station

Worcester, O. MISSOURI FRUIT CROP REPORT.

The prospects as gathered from 300 reuests sent out show this report of the ndition of the fruit crop as nearly cor-While we are having trouble in some parts of the state with the canker worm, others with the leaf roller, in still others with the dropping of the apple and peach, and in others with the peach leaf curl, we yet have a very good prospect

for the apple and peach crop.

The strawberry crop is now being cut short in the southern part of the state

by dry weather. The raspberry vines are injured badly by the anthracnose and the crop will be light; but if good conditions follow we may surely expect a bounteous crop so that all may eat fruit this year, provided prices are kept up high enough to justify shipments from the fruit districts.

growth and shorten or cut out here and there if you would combine the greatest vigor, productiveness and symmetry of growth.

Look sharply for the apple tree and Clusters Purposed Holt.

than any in which we could possibly engage.

The fellow who started the story that the apple could be grafted on persimmon stock caused me to experiment, though I had no faith in its success.

I worked apple, peach and plum on the persimmon, all of which failed to grow.

The Lucretia dewberry on a sandy hill-side is giving us fine crops of large berries of the best quality. On a piece of level, rich loam they were a failure. The Souhegan is our earliest and best black raspberry.

These counties report as follows: Ap-

past ten years, and I do not believe five per cent of these plantings will ever be competitors for a fruit market.

Moniteau, Cass, Barton, McDonald, Dade, Henry, Saline, Hickory, Christian, Ozark, Webster, Pulaski, Morgan, Cole, Bates, Jasper, Barry, Cedar, Johnson, Pettis, Polk, Stone, Douglass, Dallas, Miller,

The young orchards—7 to 10 years old— seem to be holding their fruit the best. Many are using the spray or dusting for sults. When we began shipping, May 6, we anticipated a fourth of a crop, but at present we have harvested two-thirds of a crop of very fine berries. We sold we meet to discuss them and find out how to get rid of them. We have an enthus Young & Co. of Springfield, Mo. We are astic and successful lot of fruit growers, all well pleased with the deal, as it is the nicest one we have ever had with plenty of fruits of all kinds to supply plenty of fruits of all kinds to suppl their every want. Come and see. L. A. GOODMAN, Secretary.

Mo. Hort. Society. Kansas City, Mo.

ORANGES IN MARYLAND. As the result of some experiments carried on over a period of five years, the some places there may be several seasons, agricultural department believes that as there are different honey-yielding oranges can be raised in Maryland. The plants that come into bloom, from the Bureau of Plant Industry of the depart- first blossoms of the fruit trees to the edible, would yet be hardy enough to sections, but if entirely for extracted thrive in northerly latitudes. A citrus honey, fertilised with pollen from the sweet orange. A double cross was made by fertilising the buds of a sweet orange tree with pollen from the Japanese orange. Seedlings from these parents are now our years old and have been distributed a various parts of the orange belt, where heir hardiness has already attracted attention. Some bearing trees have also been budded from this wood with satisfying results. The crossing of the Japan-ese and sweet orange trees continues and citrus trifoliata, now blooming in the grounds of the Department of Agriculure has within the last two or three lays been impregnated with sweet pollen, and the blossoms covered with paper bags to prevent fertilization with other pollen borne in the wind or carried by

EAT MORE FRUIT.

If people ate more fruit they would take less medicine and have much better health. There is an old saying that fruit s gold in the morning and lead at night. As a matter of fact, it may be gold at both times, but then it should be eaten on an empty stomach and not as a dessert, when the appetite is satisfied and digestion is already sufficiently taxed. Fruit he night has been broken is very refreshing, and it serves as a stimulus to the digestive organs. A ripe apple or an orange may be taken at this time with good effect. Fruit, to be really valuable as an article of diet, should be ripe, sound and in every way of good quality, and if possible it should be eaten raw. Instead of eating a plate of ham or eggs and bacon for breakfast, most people yould do far better if they took some grapes, pears or apples—fresh fruit as long as it is to be had, and after that they can fall back on stewed prunes, figs, etc. If only fruit of sor fast, women would generally feel brighter and stronger, and would have far better ns than is the rule at present.

AHORTICULTURAL MEETING.

The regular meeting of Mountain Grove Mo, Horticultural Society was held in Odd Fellows Hall, May 18. The hall was well filled and a thoroughly good meet-

and practical talk by Rev. Hale on the Moral Side of Horticulture. He said this calling was one of the natural pursuits of mankind and brought us close to the heart of nature. It requires a high order of intellect to be a successful horticulturist and needs the efforts of both heart and brain. Eternal vigilance is the price of success in this calling. At all times in the life of the tree it requires thoughtful attention. Plants respond to the love and care we bestow upon them. Horticulture is useful and beneficial from the closer social relations that it brings. We would like to see the young people, the boys and girls interested and thought the society hould induce them to attend the meet ings and entertain them well enough to

nsure their presence.
"Value of birds to the Horticulturist, was the subject ably handled by B. F ons, who thought the study of birds and their habits well worthy the atten-tion of the horticulturist. Birds are tion of the horticulturist. Birds are greatest friends to the agriculturist, in that they are active insect destroyers and rid the fields and orchards of myriads of insects and worms each season. He spoke of the companionship of the song birds, and the duliness of the country life if deprived of their melodies and he would willingly grant them the seeds that largely supply their daily wants. The greatest practical value, however, is found in the chickadees, nut-hatches and insects and worms each season. He spoke of the companionship of the song birds, found in the chickadees, nut-hatches and all those birds that stay here over winter which, besides hunting for insects almost continually during the summer months, supply their wants during winter largely by seeking and eating insects scales, eggs, etc., deposited on the plant and trees, in crevices of the bark and other places. Many fail to understand

COME AND GO

In many forms

Rheumatism

St. Jacobs Oil

Neuralgia Lumbago

Sciatica make up a large part of human pullering. They come suddenly, but they go premptly by the

ry, 75; strawberry, 80; raspberry, 50; black- youth of our land should be educated berry, 85; grape, 85. in these matters and protection of the birds would be assured. This should be taught in the schools, and this society should make it a branch work, and bring the matter up from time to time.—The Mountain Grove Journal.

The Apiary.

HAVE SUPERS IN PLACE.

It is well to have the supers or surplus honey boxes on as soon as the honey be-gins, or a day or two earlier, that the bees may become familiar with them, for the honey seasons are short, though in ment undertook a series of experiments goldenrod, which endures until frost kills some time ago with the view of producing an orange, which, while sweet and working for comb honey use the small thrive in northerly latitudes. A citrus is extensively used for hedges, was selected as a parent, and its buds were fertilized with pollen from the sweet orange. A double cross was made by fertilizing the buds of a sweet orange tree find a place to store their honey, and the pollen from the sweet orange tree find a place to store their honey, and the pollen for the pollen for the pollen for the pollen find a place to store their honey, and the pollen find a place to store their honey, and the pollen find a place to store their honey, and the pollen find a place to store their honey, and the pollen find a place to store their honey. find a place to store their honey, and space enough so that all may work at one time, they will begin to make preparations for swarming, and the beekeeper should decide for himself whether he prefers an other swarm, or the larger amount of honey that is stored when they do not swarm. Possibly if the colony is a strong one they may throw an early swarm, s that the two colonies will produce mo than one alone. Put after the middle of June all swarming should be prevented. The old saying was that "a swarm in July is not worth a fly," and while by moder methods a late swarm can be so fed as to be a good colony in the next year, it is not likely to do much more than to gather its own supply for winter and may not do that.

BEES AND FRUIT

Do bees, honey-bees, puncture grapes peaches and other fruits? Science says they do not, and backs the assertion with the statement that the bees can not pun true the skins because they lack the teeth and other organs necessary to break the skins of fruits. Practice, speaking through men who claim to have seen i done, say that honey-bees can and do puncture grape, peach and other fruit skins. In the conflict between these two elements one side must be right. is it? The scientists would seem to have the best of the dispute, but what is to be done with the assertions of the men wh say that they have seen honey-bees work holes into peaches and other fruits? The may think they really saw the bees d what the scientists say bees can not do. They may be in error, but, so long as they stand to their assertion so long they will find followers, and the question will be unsettled so long as even ignorant or careless observers can attract attentio be an authoritative settlement of this question, for it is a really important one. out bees naturally incline to lamage fruit by puncturing its skin, while the men with bees incline as naturally to the opposite theory. One thing is certain The bees are quite as important, as valuable and as necessary to the men without them as to the men with them. The honey-bees perform a most valuable func-tion in pollenizing fruit blooms, and it is probable that this service far outweight any levy the bees may make on the ripened fruit. The honey-bees earn their board, and the fruit-growers can not afford to take a position which, insisted upon, means the extinction of the hone

WAX FOR BUILDING COMB.

Farmer.

Colorado Experiment Station records how experiments made to determine to what extent and in what form wax can shown to be well founded by a single ex-periment, during which sheets of thin of lampblack were employed. It was them to the upper combs with brood, says found that the wax used both for the extension of the midrib and the formation of cell walls contained lampblack.

ficial foundations result in thicker cell a swarm, and if such have a tendency to walls in the comb, experiments were swarm, it would be best to allow them made with several kinds of foundation, to do so. First swarms that issue from measurements being made with the cam- the hive are accompanied with the old measurements being made with the cam-era lucida and a compound microscope. The cell wall in natural worker comb the cell wall in natural worker comb varied from 0.045 to 0.07 mm.; with an average of 0.06 mm. None of the artificial anew, and if they are given a good set of the cell wall in natural worker comb varied from 0.045 to 0.07 mm.; with an average of 0.06 mm. None of the artificial anew, and if they are given a good set of 0.06 mm. None of the artificial anew, and if they are given a good set of 0.06 mm. When of the artificial anew, and if they are given a good set of 0.06 mm. When of the artificial anew, and if they are given a good set of 0.06 mm. When of the artificial anew, and if they are given a good set foundations gave as thin cell walls exthe perhaps, the thin and extra thin suthe perhaps, the thin and extra thin suthe perhaps, the thin and extra thin suthe perhaps the conclusion from this experiment is Strong colonies must have ample stor-

The conclusion from this experiment is a mistake to make deep cells in artificial foundation, unless their walls can be rendered as thin as those of the natural cell walls. The only cell walls which were brought to the thinness of the natural comb were those which were built on foundations with a light base and with thus the work of the colony is not checked.

Strong colonies must have ample stor-age room, and nothing less than two supers of 48 one pound boxes is sufficient, I do not think much of his idea of moist-une going through a %-in. board, painted or unpainted, bee-glue or no bee-glue.—Ed.)

Alex Astor, in "Revue Internationale," says diurnal evaporation, which is always ignored, is really more than nocturnal evaporation. So when the scales show that the bees have gained 29 pounds since

the resulting comb, pieces of natural comb and comb on different kinds of foundation were cut into blocks of known area and weight, the cells walls were then removed from the midribs, and the two portions were weighed separately. The weights of the midribs and cell walls

The evidence leads to the conclusion that heavy foundations result in combs which are heavier than the natural combs, and that the increased weight is due both to thicker midribs and thicke walls are high, they are often thinned by

the bees in constructing the comb.
Studies of the extent to which the use
of foundation lessens the secretion of
wax by bees were made by a similar

ELECTRIC HANDON



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The Ft. Worth & Denver City Ry, traverses the north end of this land, the Fecos Valley and Northeastera Hy. (part of the Santa Fe system) the south end, and the Chicago, Rock Island and Facific Hy. is constructing a line from Liberal, Kas. to El Paso, Texas, which will soon traverse the middle of it. Title perfect. Will be sold in solid blocks to suit purchaser for cash or

very liberal time payment.

To inspect lands call on A. G. Boyce at Channing, a station on the Ft. Worth & Denver City Ry. in Hartley Co., Texas. and for full particulars write him or Wm. Boyce, agent, Amarillo, Texas; or Geo. Findlay, agent, 148 Market Street, Chicago, Ill.

SEEDS STOCK PEAS CHAS. E. PRUNTY,
MAIN AND MARKET SAINT LOUIS.
STRIPPED BLUE-GRASS SEED WANTED

Slug Shot Kills Bugs SEEDSMEN. IN THE GARDEN.
For pamphlet address B. HAMMOND, Fishkill-on-Hudson, New York.

dence furnished by the weights of 49 samples of combs indicate that the wax se-cretion by bees is not any more influenced by furnishing them with a heavy foundation than by the use of a light undation.

regard to the methods of using foundation in sections, it was found that by using a long piece of foundation gradually tapering to a point, with a broad base attached to the upper edge of the ection, the bees showed a tendency to

form worker comb throughout. The best results were obtained by using a long narrow piece placed across the top of the section, or a rectangular starter extending about halfway down the sec tion. The use of wooden or tin separators between the rows of sections is advisable, since their use renders the sections more regular.—C. P. Gillette.

STRONG COLONIES OF BEES

When the hives become crowded with ees in advance of the honey harvest, or at any time during the same, the be-will turn their attention to swarming additional space is not given promptly. So that we frequently have olonies so strong that they need addi-ional room to store honey and rear brook ome time before the principal honey har be best furnished to bees for their use in vest is on, and the rule of putting on surbuilding comb. As is well known, it is generally believed that bees use wax from flow will not always accomplish the deartificial foundations to extend the cell sired end. Those colonies that need addiwalls and comb midrid. This belief was tional room on account of the crowded condition of the hive, and before the hone; shown to be well founded by a single ex-periment, during which sheets of thin foundation rendered black by the addition foundation rendered black by the addition

It is not good policy to add surplus box es to any colony at any time during the The author measured a number of arti- honey season that are not strong enough To determine whether the use of arti- will store more honey if allowed to cast

the fruit crop.

At Vienna is established a school for Bee Culture

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than with the old style press.
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signments solicited and quick returns made. eation the best in the city for top prices Correspondence promptly answered.
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AGENTS WANTED To sell Ortiz



Wouldn't the workers gnaw off such wings? In any case I shouldn't like it, for I want to be able at a glance to deter-mine whether a queen is clipped. "Dr. Dzierzon, through the invention of

the movable comb, became the founder of rational bee-keeping," says the editor of Gravenhorst's "Blenenseiting." No, he is not ignorant of Langstroth. Neither do

In advising against spraying fruit trees morning, the evaporation through the when in bloom, don't forget that the polsonous spray seriously injures the delimust be credited with carrying in 20.5
cate organs of the blossoms, thus injuring pounds of nectar. (Probably Mr. Astor is not far from right.-Ed.)-Gleanings in

At Vienna is established a school for beekeepers, with building and grounds for the same. The chief course occurs June 3-16, with side courses on ten special days in June, July and September. Tultion free, limited to 20 students for the chief course.

Honey contains 20 to 25 per cent of water; nectar, 65 to 80. It is easier to remember that honey contains an average of 77 per cent of sugary matters, and nectar 33 per cent. For every pound of honey stored, the bees must bring in 2 1-3 pounds of nectar.

Stenog quotes some one as saying that save her beauty and prevent her flying.

Live Stock.

DATE CLAIMS FOR LIVE STOCK SALES.

l, 1901.—E. E. Axline, Oak Grove Poland-Chinas. .—E. S. Donahey, Newton, Iowa Mo. Poland-Chinas.
Oct. 3.—E. S. Donahey, Newton, Iowa.
Shorthorns.
Oct. 6.—F. M. & O. B. Cain and Jas. Novinger & Sons, Novinger, Mo., at Kirksville, Mo. Shorthorns.
Oct. 9.—A. Alexander and R. G. Robb & Son, Morning Sun, Iowa. Shorthorns.
Nov. 5-6.—B. O. Cowan, New Point, Mo., and W. T. & H. R. Clay, Plattsburg, Mo., at Kansas City. Shorthorns.
Nov. 12-13.—Purdy Bros., Harris Mo., and D. L. Dowdy & Co., Arrington, Kas., at Kansas City, Mo. Shorthorns.
Dec. 19, 11, 12 and 12.—Kirk B. Armour and Jas. A. Funkhouser, at Kansas City. Hereford cattle.
Dec. 18.—C. D. Bellows, Maryville, Mo., at South Omaha. Shorthorns.
Sanuary 28 to 31, 1962—Sotham's annual Criterion Sale, at Kansas City.
Jan. 14, 15 and 18.—Cornish & Patten, Osborn, Mo., and others, at Kansas City, Mo. Hereford cattle.
Feb. 11-12, 1962—Redhead Anisty, Boyles and others, at South Omaha, Neb. Hereford cattle.
March 6-7.—L. M. Forbes & Son, Henry, March 6-7.—L. M. Forbes & Son, Henry, March 6-7.—L.

and others, at South Omana, Neb. Refe-ford cattle.
March 6-7.—I. M. Forbes & Son. Henry.
Ill.; J. F. Frather, Williamsville, Ill.;
S. E. Frather & Son Springfield, Ill.;
C. B. Dustin & Son, Summer Hill, Ill.;
T. J. Wornall, Mosby, Mo., and others,
at Chicago, Ill. Shorthorns.
March 11.—W. P. Nichols, West Liberty,
Iowa. Shorthorns.
Iowa. Shorthorns.
Ione 19.—C. E. McLane, Danville, Ind.,
at Indianapolis. Double Standard Polled
Durhams.

LIVE STOCK ON THE FARM. Cattle and all classes of stock on the

Cattle and all classes of stock on the farm require care at all seasons of the year. Even in summer they can't be turned out "to grass" and then be let alone, if paying prices are to be received. They must have a supply of good water, and provision made, if there is no shade, in the pasture, to shield them from the burning summer sun, and an opportunity em to get away from tormenting given them to get away from tormenting files. This all requires care. The grain grower escapes this phase of farming. His labors continue for only a few months in the year. Perhaps this is the reason why he prefers to grow grain rather than raise cattle. But there is one facfor in his farming operations that he has list I can but say that I have found the sold he has also sold much of his soil test harmless and accurate, almost to fertility, and that to maintain his soil matter. fertility, and that to maintain and secure a succession of good crops he must spend a goodly portion of the price of that load of grain for fertilizers.

he must spend a solution of print for fertilisers, price of that load of grain for fertilisers.

Large growers of stock are recognized fact that its use is attended with no bad fact that its use is attended with no bad fact that its use is attended with no bad results. I know of no other means of diagnosing tuberculosis.

A BAD RESULT.—I regret that some large amounts received for cattle sold; large amounts received for cattle sold; large amounts received for cattle away from the truth. One bad result of this is already apparent in our state. to a judicious use of the manure pile. The stock man who measures aright ma-nure values buys the soil fertility of the grain grower, fattens his cattle for market and returns the excretions to his land. He is thus able to grow better crops and raise better cattle. There is no fertilizer that will so restore the land to its normal condition as will barnyard manure properly saved. When this phase growing is considered, the load of fat young steers has been worth more to the farm than the cash obtained from the steers in some one of the cattle markets of the country, if intelligent care has been given to the saving of the

When it is thoroughly understood that cattle growing on the farm will increase its fertility, farmers will endeavor to grow as many head as the farm can be made to grow profitably. The fear of overproduction need not affright when is such an increase of popu and at the same time decrease in range privileges, and no new world in sight.

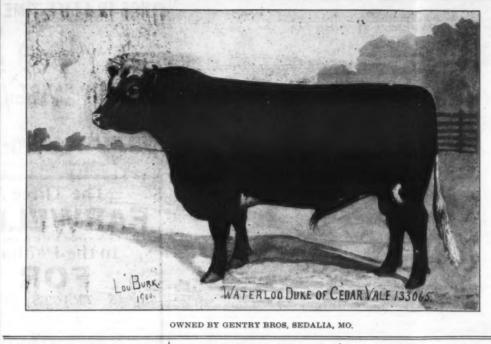
DR. LUCKEY'S POSITION ON THE TUBERCULOSIS QUESTION.

Editor RURAL WORLD: In your issue Editor RURAL WORLD. In you can be fined 22, in his discussion of tuberculosis, Prof. Shaw says: "I have noticed, almost with amazement, the strong things that have been implied and said reflecting upon the views and actions of vetering the strong things that have been implied and said reflecting the said that the said the s arians with reference to the tuberculi est of tuberculosis, and am at a loss to know whether their silence is to be attri-buted to meekness or cowardice."

I concur with Prof. Shaw in the main what he says in his article, but am clined to take exceptions to his stateinclined to take exceptions to his state-ment as quoted above. I do not know why other veterinarians have kept silent the subject of the tuberculin test, but as for me, I will say that it is neither on account of meekness nor cowardice. I have good reasons for so doing, the first of which is that Dr. Salmon has already said in a plain, truthful and scientific way about all that needs to be said. What he has said has never been disproved by anybody, and, therefore, still stands as representing my opinion exactly, and I am sure, the opinion of every one else who has made a scientific study of the disease. The personal abuse of Dr. Salmon has made a scientific study of the has eath of an overlay about all that needs to be said. What he has been as said the sure that are annually imported into Missouri that are annually imported into the break of the buffers at \$2.50 to \$4.50, to \$4. but as for me, I will say that it is neither be any better than people of other prowever, not to praise ther

browever, not to grains themselves.

My second reason for not keeping up and the tubercuils are the truth. He can be the tubercuils test is that the paper lays itself open to the charge of instincently. The following has a truthful; scientification, and I believe that it is the faith of "The following has a truthful; scientification, and I believe that it is the faith of "The following its in good and the faith of the search of the faith o



t has been boiled. There is no cure for WATERLOO DUKE OF CEDARVALE issue is a square one. It does not admit tuberculosis of the udder, and if it is found to be present the cow should be destroyed. Should the cow not react to the tubeculin test write again and we shall be happy to give you advice as to reatment.-Breeders' Gazette, October 24,

on the tuberculin test, why should it be recommended? If tuberculosis is not contagious, why not use the milk? What would be the object in destroying the

I have tested about 500 cattle, in all parts of Missouri, during the past 15 months. In bearing witness on the subject of tuberculosis and the tuberculin test I can but say that I have found the infallibility. I have not mentioned the matter to them, but I venture to say that every man for whom I have tested cattle with tuberculin will testify to the

state. As far as the tests have gone the cattle of Missouri are indicated to be almost free from tuberculosis. Not a single herd of pure-bred cattle has been found infected. As long as Missouri maintained a protection against the introduction of tuberculous cattle from the eastern states, where statistics show the eastern states, where statistics show the disease to be more prevalent, our breeders had free access to the markets of the southern and western states. The Shorthorn Breeders' Association passed reso-lutions condemning the tuberculin test and the tuberculosis quarantine regulations, and the Missouri Board of Agriculture discontinued the regulations requir-ing the test of cattle imported from the eastern states. Now, I presume as a result, the tuberculin test is required of all breeding and dairy cattle from Missouri destined for points in Montana, Texas and Arizona. If the Hereford and Angus Associations will now pass reso-lutions condemning the tuberculin test I am reasonably sure that, by another year pearly all the rest of the westen states will require the tuberculin test of Mis-souri cattle before admitting them. How do breeders like the prospect?

Under present conditions there are no restrictions on the importation of tuber-culous cattle into Missouri. Our herds are in continual danger of infection. The tuberculin test is required of cattle going from Missouri to Texas, Arizona and Montana. If things are not changed, it is only a matter of time until our herds, one by one, will become infected. An of ficial test of some of our fine Missour cattle which have been sold to some Tex-as buyer at liberal prices will show that they and the high priced herd to which they belong are infected with tuberculo-sis. Then, following the advice of the "Breeders' Gazette," their owner should

The beautiful picture that we present on this page is that of one of the Cedarvale Stock farm herd bulls. Waterloo Duke of Cedarvale was sired by Victorious 121469, out of Waterloo Duchess 5th, by 31st Duke of Airdrie 50831. He is certainly a magnificent specimen of a Shorthorn, and speaks well for the character of Gentry Bros.' herd.

use to be made of this test by the farmer for the protection of his herds? Second, if so, to what extent should he use it? by the government in mitigating the evil as it exists in the land and to prevent further invasion by admitting infected animals into the country that come from abroad. Is any use to be made of this test by the farmer and stockman? Look the matter squarely in the face, farmers; look at it calmly and dispassionately, editors of the agricultural press. Yes or no. not tested. We are either the better or this question. One is, to deny the wisted worse, the richer or the poorer for its discovery. Which is it? Who will take it upon himself to say that we should not make any use of tuberculin? Is there the say that it is made within the country, it is always they receasing that it is always they receasing that it is always they are always that it is always are always that it is always are always the say always are always are always always are always always are always are always always are always always are always a afford to put himself on record as saying that no use should be made of the tuber-culin test by stockmen? If there is, let him now enter this short cut to immor tality.

admitted that the tuberculin test can be made to render great benefit to the live stock interests of this country. any believes to the contrary, we can argue that question later, if necessary. If it is granted, therefore, that some use should be made of the test by stockn to what extent shall they use it? Should they simply test a few animals whose illdoing leads to a suspicion of its presence? What would that avail? animals might have the disease, at least in its incipient stages, and thus the evil will be perpetuated. The benefit from the partial test will soon be obliterated. If used at all in the herd, it follows by Veterinarians do not claim to etter than people of other proThey certainly know enough, not to praise themselves.

Ind reason for not keeping up a cry about the tirade against te; that it is contagious; that it cannot be reader. It is contagious; that it cannot be reader. Which will be attended with the least loss to the breeder, but they should not be sold as breeders. If, therefore, it is necessary to test all the herd if any of the animals are tested, if the disease, though obliterated, may come again, through

of tuberculosis, or it should not. will take it upon himself to say that the government should not touch the ques-tion? Who dares thus to hunger for an immortality bearing upon it the stigma of logical inconsistency? For if tuberculosis is a physical evil, who will ques Gentry Bros.' herd.

tion the duty of a government to try to lessen the same? The exact way or THE PLACE FOR THE TUBERCULIN ways in which the government should

for the protection of his herds? Second, if so, to what extent should he use it? within the country, and with propriety And third, should any use be made of it by the government in mitigating the evil within the country from the proposed in the state of the land and to reveve. people which would enact repressive measures to protect the country from in-vasion by the disease from without. people which would exact repressive measures for the suppression of tubercul-ous diseases in cattle within its borders, and which would at the same time wink It is a square issue. It is either a good thing or a bad thing. It is advisable either to use it or not to use it. It is there are only two positions that may wise either to have our herds tested or not tested. We are either the better or the worse, the richer or the poorer for its discovery. Which is it? Who will take

country for breeding purposes.
THOMAS SHAW. University of Minnesota, St. Anthony Park, Minn.

MESSRS. W. B. WADDELL AND T. C. SAWYER of Lexington, Mo., have a herd that is doing well, and they have public auction this fail.

MESSRS. W. H. FULKERSON & SON, rseyville, Ill., have a grandly bred lot of Shorthorn cattle, and they are offer-ing a choice lot of bulls of good colors, good individuals and good pedigrees. Go

E. H. RODGERS of Bunceton, Mo., is offering some bargains in Shropshire sheep, Poland-China hogs, Shorthorn cattle; Bronse turkeys and Piymouth Rock chickens. Look up his advertisement. He has good stock and may have just what you want.

The control of the cont

ST. LOUIS NATIONAL STOCK TARDS

MarketReport Furnished by Evans-Spide Buel Company.

Receipts at the National Stock Yards for the week ending June 1 were 13,153 cattle, 35,212 hogs, 16,160 sheep, against 10,649 cattle, 33,046 hogs, 14,572 sheep the previous week. As compared with the corresponding week a year ago, cattle showed an increase of 1,460, hogs de-creased 3,165, sheep increased 1,551. Re-ceipts at the four principal markets for the week, in round numbers, were 115,300 cattle, 346,500 hogs, 124,400 sheep, against 100,200 cattle, 372,900 hogs, and 121,000 sheep the previous week, and 113,600 cattle, 355,800 hogs, 92,200 sheep the corresponding week

CATTLE-Receipts in the native divis

ion fairly good; quality common to good no strictly choice nor fancy on sale. De mand good all week, and prices ruled steady to strong on all fat cattle, demand centering on the best grades. A few showed considerable grass, and buyers discriminated to some extent in favor of the dry fed. Top of the market for steers was 5%c, yet choice cattle would have sold as high as six cents. The re-ceipts at Chicago were liberal, being about the heaviest week of the season, yet the demand at all points was good, and prices closed fully as strong as at any time during the season. There have been but few weeks in the history of the busi-ness when more cattle were bought for of two answers. Either the government should take steps to lessen the harm which is being done through the presence foreign trade. Receipts of cow and heifer butcher cattle liberal, including some of the best for the season. The top for choice heifers was \$5.15, being the high-est price paid for any full load this year. The half-fat and medium grade butcher cattle closed weak and a shade lower. Re ceipts stockers and feeders moderate and demand weak for all except the very best grades, which sold nearly steady; other classes 15 to 25c lower. Receipts of milk lessen the same? The exact way or cows and calves fairly liberal, and prices ways in which the government should about steady with the decline noticed in exercise the authority vested in it will our last report. Veal calf market ruled not be discussed here, further than to nearly steady, with the top selling at \$7; It was shown in the article published in the RURAL WORLD of May 25 that the principle. Who will say that the principle in the RURAL work and more expected in the RURAL work and more expected in the stock and more expe in the RURAL WORLD of May 25 that tuberculosis in live stock, and more especially in cattle, is a sore evil on many of the farmers of this country. It has also been shown that the tuberculin test class of the danger to the public heal.

also been shown that the tuberculin test class of detecting the class of the farmers of detecting the class of the farmers of detecting the class of the farmer of this country. It has also been shown that the tuberculin test from the use of milk furnished by tubergood shipping and export steers, 1,300 to 1,600 pounds average, \$5.50 to \$5.75 to \$5.75 to \$5.75 to \$5.75 to \$5.75 fair to me exercised over herds of cows which supply strictly fancy cattle, 1,300 to 1,600 pounds cause of the danger to the public heat.

1,300 to 1,600 pounds average, \$5.55 to \$5.75; from the use of milk furnished by tubergood shipping and export steers, 1,300 to culous udders. Deny the right and the 1,600 pounds, \$5.25 to \$5.50; fair to mealso been shown that the tuberculin test is the only sure means of detecting the ulous udders. Deny the right and the presence of the insidious destroyer of our cattle, unless in the later stages of the disease. It has been made clear that the disease. It has been made clear that the test is in the main reliable when properly test is in the main reliable when properly the test is in the main reliable when properly the test is in the main reliable when properly the test is in the main reliable when properly the test is in the main reliable when properly the test is in the main reliable when properly the test is in the main reliable when properly the test is in the main reliable when properly the test is in the main reliable when properly the test is in the main reliable when properly the test is in the main reliable when properly the test is in the main reliable when properly the test is in the main reliable when properly the test is in the main reliable when properly the test is in the main reliable when properly the test is in the main reliable when properly the test is in the main reliable when properly the test is in the main reliable when properly the right and properly to fany kind dum shipping steers, 1,200 to 1,450 pounds, \$5.25 to \$5.55; fair to medeny the right and properly of any kind discussions the test of the right and properly of any kind discuss and properly of any kind discussions the test of the right and the right test is in the main reliable when properly iterference is proper when exercised in a made, and that it does not bring injury to live stock upon the farm when properly applied.

The question then comes up, first, is any the properly of such interference. The properly of such interference, of such interference, of such interference, of such interference. The properly of such interference is proper when exercised in a wards, good quality, at so, to the such a such to possess the temporal wards, good quality, at so, to the such and prudential way, and with the top was \$5.80 for 1,540-pound offerings. Steers, 1,200 to 1,230 to 1,2 or the principle of the right of such inter-\$5.50, bulk of sales at \$4.90 to \$5.35; steer weighing less than 1,000 pounds full rang \$3.35 to \$5.00, bulk sold at \$4.35 to \$4.90 Feeding steers, fair to choice, 800 pound Would that government be fair to its and upwards, \$3.50 to \$4.90, the bulk a \$4.25 to \$4.65, and they were medium qual Would that government be fair to its was only fair; stock heifers full range \$2.70 to \$4.15 and the bulk at \$3.15 to \$3.85 Fancy native heifers sell at \$5.00 to \$5.25, and there were very few on the market; choice native heifers sell at \$4.70 to \$4.95; good native cows and heifers sell at \$3.7 to \$4.60; medium cows at \$3.10 to \$3.65; fair cows \$2.60 to \$3.00; inferior, light and old cows \$1.50 to \$2.50; the bulk of the South-west cows sold at \$2.55 to \$3.50 and the bulk of all the cows sold at \$2.90 to \$4.00. Canning cows sell at \$1.25 to \$2.85. Veal that, if it is made within the country, it is absolutely necessary that it shall also pounds, bulk at \$6.00 to \$6.60 per 100 pounds, bulk at \$6.00 to \$6.60 per 100 pounds. Heretics and yearlings sold at \$2.50 to \$4.00 per 100 pounds, with the bulk at \$2.85 to \$3.50. Bulls, full range, \$2.75 to \$4.15, bulk of sales \$3.25 to \$4.0. Stocker bulls sold at \$2.75 to \$3.85, the bulk at \$3.00

JUS. SCHAAL, Lexington, Mo., one of the leading farmers of Lafayette County, has recently laid a good foundation for a registered herd of Aberdeen-Angus county.

MESONO. ast week, 169 the week before, and 283 the corresponding week a year ago. The erd that is doing well, and they have good to best steers are ten cents higher ome excellent young stock to sell at than this time a week ago, but the me dium and inferior classes show a weaker tone, while cows and bulls are unchanged There has been a good demand through out the week for all classes of fat cattle and values ruled strong.

During the week Texas and Indian Ter ritory fed steers, 600 to 1,188 pounds average, sold at \$3.75 to \$5.90, mainly at \$4.40 to \$4.75; grass steers, 600 to 1,065 pounds, at

cents was secured. Friday's receipts fair ly liberal, and prices about five lower. With a fair run of hogs on sale Saturday, prices were again five lower. A good

Shorthorns and Poland-Chinas!



Gentry Bros., Cedar Vale Stock Farm, SEDALIA, MO.

BARGAINS IN SHORTHORNS!

bulls, 3 by Victorious 121469, 1 by son of his, 3 reds, 1 dark roan; 5 yr. helfers by of Victorious and son of Airdrie Duke of Hazelhurst 117345; 14 cows are Renicks, Rose of Yong, Perls, Josephine, Young Marys and Zelias, Bates topped. Call on or address. SHORTHORN BULLS FOR SALE!

Baron Thorndale 125,000; Dark Hoan of April 36, 1896 at \$300. or will trade him for heifers. Also 6-year bulls by Baron Thorndale and out of dams of Easterday and Sedret, these strains have been in the kere since 1886, and are great milkers. Call on or address SHORTHORNS, BERKSHIRES and JACKS

Shorthorns Scotch or Scotch Top and Bates mostly. Berkshires best blood in America and England Stock of all ages and both sex for sale. Call on or address.

N. H. GENTRY, SEDALIA, MO.

ST. LOUIS NATIONAL STOCK YARDS, THE LIVE STOCK MARKET OF ST. LOUIS.

d at Bast St. Louis, directly opposite the city of St. Louis ppers should see that their stock is billed directly to the National Stock Yards.

SCOTT & MARCH, Breeders of Registered Herefords.
Young Stock for sale.
BELTON, MG



"Pasteur Vaccine"

LACK LE

Nearly 2,000,000 successfully treated in U. S. and Canada during the last 5 year Cheap, safe and easy to use. Pamphlet with full particulars, official endorsemen and testimonials sent FREE on application.

Pasteur Vaccine Co., chicago.

HEREFORDS GUDGELL & SIMPSON 600 HEAD IN HERD. Independence, Mo.

Shorthorn Cattle Scotch, Scotch Topped, Bates and Bates Topped. As good blood as the breed contains. Imp. Nonparell Victor 182573, Imp. Blackwatch 153334, Grand Victor 18753 and Windsome Duke 11th, 121623 in service. Young stock for sale. Come and see or address. GEO. BOTHWELL, Notice, Mro.

CRYSTAL SPRINGS SHORTHORNS

BLACKWATER SHORTHORNS F. M. MARSHAL, Prop.,
BLACKWATER Cooper County, Mo.
Herd headed by the Cruickshank Bull, Orange Hero 152,685 by Godoy. Females are of pure Scotch
and pure Bates, with individual merit the stendard. Young stock of both sex for sale.

ORTIZ FRUIT FARM, MISSOURI

ENGLISH RED POLLED CATTLE fine stock. From orders solicited. L. K. HABELTINE, Dorderster, Green Co., Mo.

pegistered Hereford Bulls for sale; come and see them or write to M. B. NOBLE, Otterville, ill. HEREFORD CATTLE!

N. E. MOSHER & SON, Salisbury, Mo. 100 Head Shorthorns

in herd; young stock of both sexes for sale. The Cruickshank bull Duke of Hardson 123967 at head of herd. W. H. H. Stephens, Buncaton, Mo I will sell the Hereford Bull, Sir Hesiod S7898, grandson of Corrector and Hesiod 2d. Alse 10 months oatf bull by Shadeland Dean 726(78769). Also P.-C. pigs from P. I. K. sows and I Am Perfection Dear, Stock and eggs from ligh-class Barand Buff Plymouth Books and White Leghorns.

Write for price and destribution.

Ed. C. Weeks, Eldon, Mo.

A DEHORNER r call in reference to same,
G. W. JOHNSON, Lexington, Mo.

Aberdeen-Angus Cattle. Hero of Estill 3d 23696 by Heathen Lad 2d heads the herd. Leading families. For sale: Choice Bullivan Co., Mo., J. T. WATSON, Mgr., B. B. Sta-Harris. Mo.

JAS. W. SPARES, Marshall Mo. Am seling for the best breeders everywhere. Posted on pedigree and individual merit. Terms low. J. WEST JONES, LENOX, IOWA, and CAREY M. JONES, DAVENFORT, IA IOWA'S LIVE STOCK AUCTIONEERS. Write before claiming dates.

R. W. MITCHELL, LIVE STOCK AUOTIONEER.

"" breed pure bred cattle and hogs, my host of patrons say I knew how to sell them. Write for terms and dates.

R. L. HARRIMAN, Live Stock Auetlo, Mo. Up-to-date in every particular. Am selling for the best breeders in the country. Terms low.

HARRY GRAHAM, CHILLICOTHE, AUCTIONEER.

AVONDALE GALLOWAYS. A few bulls of serviceable age now for sale. Can spare a few females, 100 in herd. Otto H. Swigart S, end State St., Champaign, Ill.



Shorthorn Bulls. A choice lot for sale. Good colors good indi-iduals and good pedigrees. Write for prices. W. H. FULKERSON & SONS, Jerseyville, Illinois

ta M. By. S. W.COX, S. Greenfield, M.

SHORTHORN CATTLE

ATALOGUES for Shorthorn saies compiled or furnished complete at attractive prices.

Address THOS. P. HALL, Breckenridge, Mo.

Clover Leaf Farm HEREFORDS
From the best imported and native strains. Farm situated 2 miles from station: Iselphones if arm. Visitors met at depot if desired. Correspondence solicited, Young atook for sale at all times, W. G., SWINNEY. Bois D'Arc. Mo., Greene Co., on Memphis R. R.

SHORTHORN CATTLE was tops selected to the breed, and Foland

logs, Angora Goats, Light Brahms and bright chickens. Stock and eggs for

Call on or address
J. J. LITTEBLL. Sturgeon. Me.

H. A. BARBER. Shorthorn Bulls For Sale! I have a choice lot of young bulls of Scotch. Booth and Bates families; also a few heiters for sale with salf, and invite intending purchasers and those incerested in good cattle to call at our farm, four miles west of Windsor. The best located herd in Mo. for southern purchasers. All stock put on cars.

Shorthorn Bulls. line Scotch topped Bose of Sharon and Young larys from 10 to 14 months old. Call on or address L. B. & D. W. HENSLEY, Montgomery City, Mo.

R, NOBLE—Breeder of Registered Here-ford Cattle, A caoles lot young valls for sale. OTTERVILLE, ILLINOIS.

RAVENSWOOD HERD SHORTHORNS

125 head in herd. 20 bulls for sale from 6 to 18 m old. Scotch and Scotch toped. Herd headed b (Lavender Viscount, 18775), the champion Shor-horn bull of the Kanasa City Show, 1960. B. D. PATTES C. LECONARD, Bell Air, Ms. ED. PATTES N. Manager. R. B. and telephone station, Bunceton, Mo

Shorthorn Cattle,

JOHN MORRIS. Chillicothe, Mo.



Horseman.



Horsemen should look over the advertisements of all the coming trotting and pacing meetings at the various fairs. Most of the entries will close shortly. Determine what meetings you will attend and make entries accordingly. If a single day too late your opportunity is gone. There is a fine list of meetings advertised and you can readily make your choice.

At a late meeting of the Road Driv-At a late meeting of the Robat Div-ers' Association of New York a resolu-tion was adopted condemning all wagers, whether money or wine, on the speed-way. Hereafter, any member of the or-ganisation who is concerned directly or indirectly in any bet growing out of a brush between horses on the drive may be expelled from membership.

That great possibilities are open to the of trotting horses who keeps an eye on beauty as well as speed was shown, says the New York "Herald," by the recent sale of Happy Thought, 2:33%. for \$7,600. Though not fast enough for the track and the speedway, his grand form, action and style made him worth

Just as we were ready to go to press we received the advertisement of the Mo-berly, Mo., Fair meeting, which takes place July 28 to 26th, inclusive, the week preceding the meeting at Columbia, Mo. This is the same week as the Quincy, Ill., meeting, and horsemen can select the one that is most convenient or that suits them. Moberly has an excellent mile track and the most beautiful Fair Grounds in

professional starting judge, will start horses at the meetings in the following places in 1901: New Hampton, Iowa; Decorah, Iowa; Waverly, Iowa; LaPort, Iowa; Cedar Rapids, Iowa; Marshalltown, Iowa: Baldwin Park, Quincy, Ill.; Columbia, Mo.; Mt. Sterling, Ill.; Macomb, Ill.; Carthage, Ill.; Columbus Jct., Iowa; Missouri State Fair, Sedalia; Ark. State Fair, Pine Bluff: Shawnee, Okla.: Vicksburg, Miss.; Meridian, Miss.

Among the noted horses which will the late William E. Spier is sold at auction are Directum, 2:051/4; Adbell, 2:23, as a yearling, both world's champions; Copeland, 2:09%; Dainty Daffo, 2:13%; Amby (2), 2:16%; Jefferson Wilkes, 2:14%; Mary Celeste, 2:171/2; Major Delmar (3), 2:15; Adabella (2), 2:254; Jummye, 2:204, and greatest bands of brood mares

Mr. B. B. Graham of St. Louis, who is connected with the Graham Paper Co. of that city, arrived in Lexington Monday night, says the Ky. "Stock Farm." Mr. Graham is interested in trotting horses, and came here for the purpose of looking over Ashland Cassell, which he recently secured from Col. J. D. Creighton. Ash-land Cassell is by Ashland Wilkes, dam Minnie Cassell. As a three-year-old he went a trial mile in 2:151/2. He is looked

linois. The purses for speed are always paid from the stand at the conclusion of each race. It has one of the best haifmile tracks in the state. There is good pure water and an abundance of fresh grass on the grounds. Horses can be unloaded from the cars right into the grounds, and it is only a short distance from the Illinois river, on which steamboats are regularly running. This is a good fair to attend.

Dr. A. H. Baker of the Chicago Veterinary College says: The idea of feeding a horse only twice a day, to prevent indigestion, is nonsense. At work, he requires three meals. To secure the best nutritious results, give the horse a few swallows of water and let him eat hay half an hour before giving oats or corn The horse should be watered again before giving the grain, and then not again in the feed will prevent it, and incidentally put a gloss on his coat-and a few stones in the box will prevent him from bolting his food, as he will have to nibble around them to get his oats. Nose-bags are to be highly commended, in feeding outdoors. Every horse should

hand, good care and nursing are worth far more than medication, says the Place the patient in a more cold. Feed what he will eat and opportunity in the stud, and has gone often. If the abscess is slow to form in ty of B. F. Holway. The horse should be of great value to that part of the country, for you to blister. If it has already swollen poultice it with warm linseed meal and when it becomes soft lance it, or if it should break of its own accord, continue the poulticing two days after wards. If the bowels are confined do not physics, but resort to the adminis-on of copious injections of hot water. When the acute condition has passed give this tonic: Tincture per-chloride of iron, one and one-half ounces; quinine three drams, nitrous ether two ounces, water to make a pint. Give two ounces of this three times a day.

KILLED-DEAD.



Dr. S. A. TUTTLE, 32 B

The motto of the Short-shipment Ciruit of Southwest Missouri is, "We Pay."
ive meetings compose this circuit, and
9,000 in purses is offered. John D. Moore of Rich Hill, Mo., is circuit secretary, and An adversement in this issue gives tun parties are and should be read by all owners of otters and pacers that are looking for

3:00 trot: ntonina, ch. f., L. Petersen...

lecteer, b. h., Colman Stock Farm.1 2 Classified pace:

Monbelle, ro. m., Colman Stock Farm.1 Governor C., b. g., E. M. Murphy......2
Aunt Mary, gr. m., Geo, N. Meissner.3
Time—2:29%, 2:27½.
Classified trot:

King Mack, b. g., Louis Spelbrink 1 Wilkesgold, b. h., Colman Stock Farm.3 1
Angie, ch. m., Jas. E. Kenney........2 3
Missouri Russell, b. g., Clem Weick..4 dr Time-2:32¼, 2:35½.

Some of the foremost breeders of Ten nesse are discussing a plan that, while it may lack some of the elements of originality, yet is sufficiently unique to be attractive, and if carried out as proposed, may result in much good to the breeding interest of that state. The idea is to form a club for the purpose of buying a trotting stallion whose breed-ing is not only of the best, but whose success in the stud is beyond question, especially as a sire of colt trotters. especially as a sire of colt trotters Under this plan, of course, the service of the horse would be confined strictly to members of the club, each being limited to a certain number of mares; but it would seem reasonable to suppose that in any instance where a member did not own his quota of dams he should be permitted to make up the required number by letting the privilege to out-side parties, the fees for the same to be prorated among all the members.

Sunol, 2:081/2, the former queen of trot-By the way, I think it would pay any horse Robert Bonner ever owned, foaled man with means to spend a little money norse Robert Bonner ever owned, foaled a fine bay colt May 21 at the country place of John H. Shults, near Port Chester. The sire of the high bred youngster is Mr. Shults' fast trotting stallion Axworthy, 12:15½, son of Axtell, 2:12. This colt is Speed. Without these old pacing families of Sunol's first foal. The great daughter of for a foundation to the daughter of form and time in getting together and propagating any of these old pacing families of horses, that we own so much to for what little we have attained in the way of specific the daughter of the dau Sunol's first foal. The great daughter of for a foundation it is doubtful if Henry Electioneer is now fifteen years of age, and it is ten years since she set the world's record at 2:08%—a mark that has never been equaled by a trotter to blob. never been equaled by a trotter to high wheel sulky. The late Robert Bonner paid \$41,000 to Governor Leland Stanford for Sunol. Mr. Shults got her for \$4,000 at the dispersal sale of the Bonner ses, in 1899. She was then too old to campaign, and it was not generally be-lieved that she would ever raise a colt. Mr. Shults is very proud of his new trot ter, and all the horse world will watch its future with keen interest.

The great men of the country almost universally had for their mothers wome of keen intellect, of more than ordinary perceptive abilities, and, in fact, equal, if not superior, in every way to the parent on the other side of the house. Like conditions are observed in the animal kingditions are observed in the animal and dom, especially as to the horse. If you find a first-class horse in every particular, it is very seldom that the dam is not of the best, says "Western Horseman." Many of our breeders seem to lose sight of this fact, and think any kind of a mare bred to a first-class stallion, should produce the best results; but in The Griggsville, Ill., Fair, sometimes known as the Illinois Valley Fair, opens July 30, and continues four days. This is one of the very best county fairs in Illinois. The purses for speed are always paid from the stand at the conclusion of necessary the influence of the dam is as great as the since in freat results; but in as great as the since in freat as part as the influence of the dam is as great as the since in freat as been fully demonstrated during the past decade, when bronchos, half Clydes-dales and other inferior mares were bred to high-class horses. To get a high-class paid from the stand at the conclusion of

L. E. CLEMENT'S HORSE GOSSIP.

Editor RURAL WORLD: Pistachio, the pacing brother to Nut-wood, is credited at 14 years of age with wood, is credited at 1st years of age with having sired five trotters and one pacer. His dam was by the pacing bred Pilot Jr., and himself a pacer. General B. F. Tracy should note these facts, if placed in con-spicuous places around his barns; they

"Stock Farm" from Kansas, indicates that things have not always been as they should be at Holton, Kan, More than one record has been very fast over that track. Perhaps he or some of the other Jay Hawkers could indicate some such hap-

he purchased Zebu, 2:29½, by Regent, dam Zingara, dam of Aldaret, 2:26, the good son of Prodigal, by Onward. Zingara's two standard performers are both by sons of Onward. Zebu has had very little although he cannot hope to make mu reputation for himself where there has been so little breeding for speed as in

Western Arkansas.
In Joplin I found the big horse Ethington. 2:25, bred by Capt. Todhunter, sired by Electric 2870, son of Onward, out of Graceful, by Almont Pilot 763, second dam Bodine, by Marmaduke. The horse is credited with only one heat in standard time, and is now in a livery stable in Joplin, Mo. As he is only 11 years of age and has never been injured in any way, he should be a valuable horse in the position he is called on to fill at the present

would make a nicer team than his Illinois tion is controlled or directed. The exe purchase. A single horse bred in Barton cution which the rifle will do depends up county and owned by F. B. Hilliard of on the quantity and quality of powder be purchase. A single horse bred in Barton county and owned by F. B. Hilliard of Monett was under inspection also.

Charles Dando, who brought out Black pications for entry blanks, etc., Dick. 2:114, has a four-year-old by Black Dick, dam May Stanton, by Marr's son of George Wilkes, second dam by General Stanton, that he thinks highly of. Mr. Dando also has Hal Patchen, 2:151/4, out of acing in a section where times are good Dixie, sister to Black Dick, and will cam-nd money is plentiful.—Western Horse- paign them this year.

D. M. Ervin drove Inga, sister to Colong, sire of Alldone, a mile in 2:26; this mare can trot or pace in standard

John Splan paid \$400 for Lady Ervin receptor, dam by Billy Green, W. Stebbins of Carthage, Mo. She should make a great road mare or

credit of his sire.

Mr. Rutherford is handling several at

Joplin, among them a two-year-old by Harrison Chief, Jr., dam by Prince Medium. His sire, although as rough gaited as Campbell's Electioneer, was very fast, and Prince Medium, sire of his dam, was one of the best young sires in the west. The black gelding, Coupon, that was campaigned through the west by John F. Kinney, is now in the string of W. F. Er-

J. G. H., in writing from Spiceland, Ind., gives me a pointer on a new son of Blue Bull. I had never heard of Wander-ing Sam. The suggestion made by this correspondent is of more value than he thought of, for it would affect the whole

breeding problem:
"Ell Foster, the former trainer of Robert F., 2:16½, and Hal Foster, 2:17½, now owned by Wes Stout, was over from Greencastle, and exchanged everything Hal 3000. He is a dark chestnut, 161/4 hands high, and one of the best individuals in this country, and has shown a 2:30 clip with no preparation. By the way, I think it would pay any

that every race horse our county has pr duced has carried some of the blood Blue Bull 75, Tom Crowder, Ferguson Joe Tom Hal 3000. Red Buck. Davy Crocket or some other of these old pacing fami-lies, and there is no one trying to per-petuate any except the Tom Hal family.

The business would pay.

The average man in the country doesn't comprehend pedigrees with the greates of readiness. I often find a man with thoroughbred Hambletonian or full blooded Blue Bull." J. G. H. When the general breeder grasps what is herein contained we will breed more regularly than now.

FOUR ESSENTIAL QUALITIES.

The three most essential qualities for race winner at any gait are speed, cour-age and endurance, says the "Horse Breeder." Trotting instinct is also a very important quality in a trotter. This trotting instinct is a mental quality. It is simply an inclination to adopt and stick to the trotting gait when urged for speed. It is one of several important qualities which an animal must possess in order courage and endurance as is the sense of hearing from that of sight and smell. This quality is more susceptible to im-provement by education than any of the other important qualities that are necessary to make a successful race winner The extent to which it may be improved in different individuals depends upon the mals. For this reason many animals tha do not appear to have a strong inheritance or at least a long one, are often found to be level headed, reliable trotters.

Courage or a disposition to try to beat competitor is also a mental quality and very important one. A horse that does not inherit this quality in a high degree can never be made a game fighter in a race by any method of education known and himself a pacer, deneral S. F. Tracy race by any method of education known should note these facts, if placed in contered again between spicuous places around his barns; they will be of great money value to him.

Don't let your Winfield James, in his last letter to the state of the most skillful trainers. A horse that is not liberally endowed with this quality by inheritance will always quit trying to win whenever he of the most skillful trainers. speed, or a dead game one with equal speed. As this quality can only be im-proved by careful selection, every one who hopes to breed successful race win-Hawkers could indicate some such happenings at other Kansas points.

A. B. Kell of Fayetteville, Ark., has been using in the stud a non-standard son of Regent, by Onward. Last spring be buttled by 18 and one to eradicate. No class of her week possess of the study o ners should not fail to keep it in mind horses is more unpopular among horse-men than animals that have speed and endurance enough to enable them to but won't persist in trying to do so.

very valuable one, too, in a horse that is to be used for racing purposes. It is an inherited quality, but can be improved greatly by judicious training and conditioning. A well conditioned trotter or pacer than has inherited only a fair amount of endurance, may, when in the best of condition, outlast another which has inherited a much higher degree of en-

Speed capacity, that is, the ability to show a high rate of speed at the trot or pace, is perhaps the most valuable of these four most essential race winning qualities. Speed of itself is not, strictly peaking, an inherited quality. It results however, from other qualities that are inherited and transmitted. It depends Dr. Tyler of Joplin is enthusiastic in the somewhat upon the conformation of the Tou know that the horse buyer knocks off \$50 or more for every lump or blemish on a horse. Get full value for your horse-don't have any lumps. Cure him with

Tittle's

Elixir.

Elixix animal, more still upon the true, friction-

hind the ball. Let the charge of powde be deficient in quantity or quality, no matter how perfect the barrel and all other parts of the rifle, it will be impos-sible to kill big game or do execution at

a long distance. So, too, if the animal be deficient in nerve force or propelling pow er, no matter how strong the trotting in-stinct or how resolute the courage it will be impossible for that animal to attain a high rate of speed at any gait and main-

tain it for any great distance.

We believe that the endurance of any horse depends largely upon the natural capacity of the animal to generate and store this product called nerve force When the supply gives out speed musi diminish. Great lung capacity, pure air, a perfectly healthy digestive apparatus, reduce her record if given a chance.

Dandy H., a green pacer in D. M. Ervin's string, is one of the best green horses I have seen this year; sired by Lockheart, son of Kinlock, by Cuyler, dam Nellie, by Princeton, he can easily take a mark better than 2:20, and would be the first standard performer to the the first standard performer to the creatit of his sire.

diminish. Great lung capacity, pure air, a perfectly healthy digestive apparatus, and an abundant supply of nutritious food of the best quality are the most essential factors for generating nerve force. It is unquestionably a product of the botter than 2:20, and the better the circumstant of his sire. culation, the greater will be the supply of nerve force, hence, other things being equal, the greater will be the speed ca-pacity, whether the gait be trot, pace or gallop.

According to the teachings of those who best understand the subject of heredity, "the individual qualities which constitute a species can almost all vary independently of each other, and can, therefore be increased even by artificial selection according to the fancy of the breeder, without requiring a corresponding change in the remaining qualities of the species." Hence it is possible to increase the speed capacity in the offspring by selecting animals which possess that particular quality, nerve force, in the highest de-

The same is true of the other three qualesired select animals in which that trait s strongest, those which have the longest For an improvement in courage select the gamest race horses whose blood lines are freest from cold or cart horse crosses. For speed and endurnce select animals that have the strongoted and successful long distance thorughbred race winners.

WORLD BEATERS SOMETIMES NOT

Colts and filles that show great natural speed when young generally prove most African war drew away from this country profitable to breeders. Many of them de-turned the fully 25,000 head, but a strong reason for the diminished supply is the apathy of that do not become distinguished at many farm breeders, who fancied with turity are doubtless ruined by injudicious a host of other people, that the coming

(and undoubtedly will in the future) that rearing and consequently stocks have run animals which did not show phenomenal down in a wide area of farm district speed in the lot when young have become fast, reliable campaigners and good money by worn out with use. All prime soun

vorld's champion trotters.

Hopeful (2:14%), the fastest of the get of The late B. D. Whitcomb, who bred and raised him, informed the writer that Hopeful was not a lot trotter when young. He did not show indications of inusual speed ability until four years old.

St. Julien (2:14%), the first trotter in the world to take so fast a record as 2:12%, sidered a good speed prospect beside has never been represented as a phenom-having size. Mr. McDowell was in Pres has never been represented as a phenom-enal lot trotter when young. If we re-member correctly he was used for a time o haul a milk delivery wagon.

It has never been represented that the mous old-time trotting champion Maud (2:06%) was a fast lot trotter when about \$250 at a public sale if we remer orrectly. It is not probable that the proprietor of Woodburn Farm would have old her for that paltry sum had she then or previously shown indications of beng a world's champion trotter. She would have brought many times that sum had shrewd horsemen then been impressed with a correct idea of her ability as a uture performer.

Coming down to the present time two of the most remarkable trotters now in training did not show phenomenal speed at first. They are Lord Derby (2:07) and The Abbot (2:03%). Speaking of Lord Derby Ed Geers says in his experience with trotters and pacers:

I first commenced to work him in the fall of 1899, when he was four years old, and he did not then give promise of such extreme speed as he has developed. That fall he could not trot a half mile better than 1:10, but his gait was beautiful, and in the work I gave him he improved very

Many yearlings have trotted quarters in thirty-five seconds at Lexington, Ky., in recent years. The Abbot, as our readers all know, holds the world's champion trotting record, 2:08%, but it was some time after he was broken to harness before his trainer discovered that he was the making of a world beater. Mr. Geers

I first commenced work with him in the fall of 1896, when he was three years old. At that time he was rough gaited, and inclined to amble and mix his gaits. I experimented with him for some time before he convinced me that he possessed ma terial sufficiently good to be eligible to start in the Grand Circuit.

dered in past years on youngsters that were naturally good gaited, and showed remarkable speed at first with but little handling, but failed to train on. The trouble with many of them has been a ed, but there were among their ancestors animals that were lacking in some of the many qualities that all first-class per-

eral generations on both sides have shown that they possessed the best of racing qualities, it will often pay to persevere in training such, though not showing phe-

RECORDS AGAINST TIME.

While the rules of the two trotting asmanner in which time, or "tin cup," stand the best method of procedure to attain the desired end. Generally speak ing, it may be said that legislation in this regard by the turf congresses has had a twofold object—first, to prevent records from being acquired improperly, and, sec and, to guard against the dodging of rec ords. Laws have been dickered with considerably, and action has been determined, to some extent, according to the temporary outcry against the two classes of improprieties named. But the rules as they now read have stood for a long time, and will, in all probability, for a longer time to come, because they are about what they should be to accomplish their puble object. If the desire is to acquire a standard

record, the best plan is that in vogue at the Lexington track. After complying with other conditions, start your trotter to beat 2:30%, or your pacer to beat 2:254. If he is successful by a quarter of a second he has an unquestionable stand-ard. The same object can be accomplished by starting a trotter to trot in 2:30 or better, or a pacer to pace in 2:25 or better because a performance in either time mentioned is a record; but the other way is preferable, because a 2:30 or 2:25 per-formance under it is clearly a winning one, as the horse has beaten, instead of qualing, the time mark set before him it, start him always against his own rec ord. If he succeeds, you have the glory and if he fails he is still eligible to hi

slow mark, whose speed you desire to exhibit publicly, but not to acquire a record, start him against 2:93%, trotting, or 1:59%, pacing. In this way he can beat 2:10 without acquiring any record, and should be happen to surpass the mark set befhim you would still be happy.—Turf, Field

New York, May 30 .- The notable revival of the horse trade here and in other large cities is becoming a matter of much comment. The public sales of much comment. The public sale stables are having an unusually large at tendance, with prompt demand for fair priced and more expensive animals. Scar-city of horses helps to account for the strong conditions of the trade. The South training when young, says the "Horse Breeder."

It has sometimes happened in the past for horses. This has materially reduced ibly worn out with use. All prime sound winners at maturity. In fact, some of horses of proper age are fully 50 per cent

have become distinguished as higher than they were three years ago. s champion trotters.

Preston, Minn., Stock Farm shipped yesterday to Frank McDowell, the well Godfrey Patchen, was one of that kind. known horseman of Fostoria, Iowa, the got him for \$180 and paid his own freight He was only about 15 hands high, yet he held the world's champion trotting record to wagon, 2:16%, from 1878 to 1891.

Bolsinger was sired by Long Superior, dam by Bay McGregor, g. d. by Herod, g. d. by Trample. He had been educated by Mr. Millard in harness and is con-sidered a good speed prospect besider on a few weeks since and drove Bay Mc Gregor, looking over all the youngsters for sale in this section. His final pur-chase of the Long Superior colt is no nean compliment to that horse.—Preston Minn., Times.

> Here is what George Garth, the Alabama trainer, says in regard to the use of weights: "I know they think it is the fream of an old farmer when I say that weight improves a horse's legs. There was Marion G., narrow-kneed and thin legged until I got her balanced with plenty of iron, even thirty-four ounces in mare as you ever saw.

Veterinary.

INFLUENZA. — There is a disease among the horses of this community, the symptoms of which are as follows:

The animal first becomes stupid, and loses its appetite. The eyes become infamed and water. Some of the horses have not regained their eyesight after having disease some three weeks. They also scour very badly. The lips are swollen and the animals get very stiff and sore. The young coits die with the disease when from one to five days of age. Please let me know through your veterinary column what the disease is and the remedy for it.

Linn Co., Mo.

The synonyms for this disease are pinkeye, episootic, infectious muco-enteritis catarrhal fever, infectious pneumonia, la grippe, etc.; the disease being named from whatever organ is affected. enza has been quite prevalent this season every case saved. The temperature often runs as high as 108 F., and it is not unlack of speed inheritance. They were born trotters, good gaited and good headed, but there were among their ancestors

35 to 40). You cannot combat the disease successfully unless you have a clinical thermometer and are familiar with the pulse. Fluid ext. of digitalis, ext. bellamany qualities that all inferences per formers must possess.

When a colt or filly is known to have a first-class speed inheritance, that is, when all of his or her ancestors for several generations on both sides have shown that they possessed the best of racing No fixed formula can be laid down in No fixed formula can be laid to the No fixed formula can be laid to th No fixed formula can be laid down in treating this disease.

How much can you afford to pay for a good vehicle? The free book of the Ohio Carriage Mfg. Co., 12 West Broad St., Columbus, O., tells you how much it costs to make a vehicle. Send for it and post yourself.

Mention The Rural World when you write.

CASH.

It will pay you

to send for our Catalogue No. 6, quoting prices on Buggles, Harness, etc. We sell direct from our Factory to Consumers at Factory Prices. This guaranteed Buggy only \$31.50; Cash or Easy Monthly Payments. We trust honest people located in all parts of the world.

CENTURY MANUF'C CO., East St. Louis, III, MOBERLY, MO., RACES.

JULY 23, 24, 25, 26.

2:30 " 200 2:23 " 200 2:19 " 200 Free-for-all Pace..... 200

Running, ½-mile dash, \$100; 6 furlongs, \$100; ½-mile dash, \$100; 4½ furlongs, \$100; 1 mile Novelty, \$25 for each ½, \$100; 5 furlongs, \$100; ½-mile dash, \$100; all horses that have not been one, two or three at this meeting, ½-mile dash, \$100.

Entrance fee for runners, pacers and trotters, five per cent and five per cent additional for winners. American Trotting Association rules govern this meeting.

W. R. CARTER, Track Manager. A. C. DINGLE, President. E. W. ROBERTS, Secretary.

GRIGGSVILLE, ILL., FAIR.

JULY 30, 31, AUGUST 1, 2.

SPEED PROGRAMME.
ULY 30. THURSDAY, AUG. 1, TUESDAY, JULY 30. ### WHINESDAY, JULY 31.

-2:19 Cluss Frot. Purse, 4500
-2:36 Class Face. 300
-Novelty Mile Dash. \$15 to horse winning sach quarter, 5 per cen: entrance fee and 5 per cent additional from winner of each (uarter. \$400 km. 14-2:35 Pace. 400 km. 15-4 Mile Dash. \$50 km. 15-4 Mile Dash. \$50 km. 15-4 Mile Dash. FRIDAY, AUG. 2.

SHORT SHIPMENT RACING CIRCUIT OF S.-W. MO.

Stake Race Program, 1901.

Stake No. 19—3 vear-old Trot. 200 Stake No. 11—3 vear old or under pace). 300 Stake No. 12—3 vear-old Trot. 300 Stake No. 11—3 vear old Pace. 300 Stake No. 11—3 vear old Pace. 300 Stake No. 10—3 vear old Pace. 300 Stake No. 11—3 vear old Pace. 300 Stake No. 11—3 vear old Pace. 300 padd.) Record no bar after June 1st. 1901, provided entry is made (or regularly mailed) according to rules and conditions, prior to the date on which record is made. Special Entry Frivilege—For one full entrance fee (5 per cent) paid at the time of making entries, a nominator may enter and name two horses in one class or one horse in two classes—the starting horse and class to be finally determined and the Circuit Secretary notified not later than August list; otherwise, nominator will be held for the additional entrance fee of 5 per cent. 4 the Circuit Secretary notified not later than August which is to be puld when entry atmitted herein. Entrance fee 5 per cent of purse. 2 per cent of which is to be puld when entry atmitted herein. Secretary notified not of the state of the stake of and the entries made therein transferred to the next feater class, unless objections off and the entries made therein transferred to the next feater class, unless objection more, no less. Stake races shall be alle heats, 3 in 5, except 2 year-old class is half-mile heats, 3 in 5. horse can Thour one money in a race. Stake race money divides 50, 25, 15 and 10 per cent. Hight reserved to chast horse can start in two classes at each meeting, whenever practicable. The usual weather clause applies.

COLUMBIA, MO., RACES,

JULY 30, 31, AUGUST 1, 2.

STAKES

** 1-2:18 class trot.

*** 5-7:18 class trot.

*** 5-8:18 class trot.

*** 6-8:18 class trot.

*** 6-8

MISSOURI STATE FAIR.

At Sedalia Sept. 9 to 14.

Entries Close June 15th, 1901.

The State Fair falls in line with and forms one of the links of the Short Shipment Circuit of S. W. Mo. American Trotting association rules to govern. Entrance fee, five per cent.; two per cent. payable with entry and three per cent. before starting in race. Five per cent. additional deducted from all winnings. Stakes not filling satisfactorily declared off and entries transferred to near faster class. Money divided, 50, 55, 15, 10. Right reserved to change order of programme, postpone or declare of races for easse. For one full entrance fee of 5 per cent., paid at time of making entry, a cominator may enter and name two horses in one class, or one horse in two classes, the starting horse and class to be

BALDWIN PARK RACES

Quincy, Illinois, July 23, 24, 25 and 26, 1901.

THIRD DAY.

Purse, \$300.00
No. 9—Adams Co. Free-for-All T. or
Purse, \$300.00 800.00 800.00 No. 10 - 51:17 Tros. No. 10 - 51:17 Tros. No. 10 - 51:17 Tros. 10 - 50:00 No. 12 - Quincy Derby, one-mile... FOURTH DAT. No. 5-3:25 Trot. "300.00 No. 13-2:30 Trot. "300.00 No. 13-2:30 Trot. "300.00 No. 14-3:34 Pace. "300.00 No. 14-3:24 Pace. "300.00 No. 14-3:24 Pace. "300.00 No. 15-3:40 Pace. " N. E. WOODS, Professional Starting Judge.

STUDEBAKER

QUALITY

TRUCE 7859

brother to Norther 2:13¾, by Onward 1411, out of Ellen Pruitt by Ashland Chief 751, and sire of Vergie Truce 2:15½ and Maxin H. 2:15½. Also a standard, registered son of Norther. THOMAS COULTER, Peculiar, Mo



Quickly. Cures any strain of the ligaments or muscles. Proof if you want it. \$1.00 per bottle delivered.

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SPRINGFIELD,



ou can get them. or Bres. Mfg. Co., South Bond, ind., U.S.A.

Studebaker Wagon

Ask Your

Neighbor,

Home Circle.

Ry Ella Wheeler Wilcox. There is but one great virtue to pursue One quality to seek-unselfishnes In its four-syliabled environment Lie all the other virtues; it contains The world's redemption.

Put aside your creed. Lay text-books on the shelf! Let dogmas much or little, but from dawn to

dusk
And dusk to dawn think naught, say naught, do naught To harm or trouble any living thing.

Climb without crowding others; there is For all God's creatures in the world he

Ask nothing for yourself but usefulness, Since that embraces all the ways of

igh glory weaves no laurels for your He who is always kind is more than

great.

WHIFFS FROM ROSA AUTUMN'S GARDEN.

The editor and family were the recipients of a collection of roses from Rose Autumn of Rosedale Farm; and the nom de plume of the sender and the farm name, judging from the beautiful collection of roses received, are most apropor These roses were of the choicest and grace the dining table looking as fresh as if picked this morning instead of having a car ride yesterday. Without a single ex-ception it is the finest collection of roses we ever saw that came from a farm home.

farmers have more rose gardens; it will take the drudgery out of life. These roses from Rosedale Farm reveal one of the whys of the serenity of the life of

Written for the RURAL WORLD. RECOLLECTIONS.

The sun had just hidden himself behind a beautiful bank of purple clouds, giving back one parting ray as a promise of his returning again soon. This little of light wandered into a home in the suburbs of a small city, and, making its way into a death-chamber, fell across a sleeper's face, a face where the great Destroyer had left his traces.

Alone and solitary sat a man at the bedside of his dead wife. The sunlight blotted from his face, he looked a picture and woe. Ah! how well he remembers the time when the sleeper's dead face was the fairest and most beautiful in this very city; but that was years ago. Yes, he could hear even now a faint echo of her gay laughter and fancied he could see traces of the smiles which so long ago had ceased to play

asked her to be his wife. The same pur-ple sunset was in the west; the same street, where the famous Totem pole stray sunbeams fell over her hair and crowned it with their celestial brightness. He remembers quite well the day he led Mary to the altar, the proudest, happiest man in the world. He had, but did not ealize it wooed and won one of the most loyal of women in this great land.

All these things are rapidly crowding

their way into the thoughts of this desolate man, for thoughts of his future are far too bitter for his dwelling upon them. For many more are the recollections that break forth forcing him to look upon them in a new light.

Three years of married life had passed by, yet he was alone with his wife; no childish voices echoed through their home, patter of little feet was heard "comafter his day's work was over. One day, which he had counted on being such a one, he clasped in his hungry arms a child of his own, but the little thing only looked up into his face and smiled, and then passed into the Great Beyond, back to the Maker who gave it. Years passed by and the husband grew to be a peevish, fretful man. He often scolded his wife, blaming her for all his cares and troubles, and accusing her of being

Here the strickened man bows his head and weeps as he ne'er had before. Mary untrue to him; tender, true, loving Mary? He did not notice the youth and bloom fading away from his wife's once fair

face; no, he was far too selfish to even think of the welfare of the one whom days he had so often caressed loving wife was slipping away from him without a complaint or a sigh; yet as she lay on her deathbed she looked up into her husband's face and murmured: "John, I am dying of a broken heart." Ah, how those words smote him! "Mary!" he calls her name and drops down by her bedside; but Mary is gone from him; yes, gone to her heavenly home, where "God shall wipe away all tears."

But what of the husband? He is-nay, let us drop the curtain of gloom and not look upon this man in his great and awful grief, for it is not for mortal eyes t MABEL FUNKHOUSER. Appanoose Co., Io.

Written for the RURAL WORLD. ACROSS THE DEADLINE IN SEATTLE

To-night as I sit by my window watch-ng the lights on the hills of this great city, a vivid longing comes to me to lift the veil that intervenes. As the Omnipoent looks into the heart of the children of men, so would I know the eager, res less throng for a moment just as they

Rome built on her seven hills became the giory of the world; even so the day is coming, when this city will stand without a rival, judging by its wonderful d. Car lines extended into what was a wilderness a few months ago. The emi here. Thousands of people from every land under the sun arrive here every s. The real estate boom is

Has been used for over sixty years by millions of meethers for their WIMSLOW'S children while teethers of the wind the season of the wind to the season of t

nd wended our way across the deadline, as the lower part of the city doeadline, as the lower part of the city is called. It is along the water frontwith its traffic, its moored boats, its crowds of men of all conditions and from all nations. Here men of refinement and with those that have cause to mourn, which the collections and from the collection of the collec hardened faces, bleared eyes and gaunt humble home, a home so humble orms, with all the pathos of a wasted torms, with all the patients of a wasted infe written thereon; there is the tired and stretching upward, longing as the ling and repining? While I would enjoy a teper of old to be clean-longing, per-great many comforts and luxuries I do chance, for love, for home, for friends, not possess. I try my best to for the loved forms of wives to nestle in their aching arms, for the pattering footfalls of little children. Pondering on these things we at length reach Dr. De Soto's hospital boat. It is moored fast to the dock. We shiver with disgust at the dirt and nauseous smells which greet us. At the risk of life and limbs, we way across the rickety gang-

way. Our dainty ladies remind one of lilie in the slime, as they make their way among these grim wrecks of humanity, whose lives swell the pages of crime. We ound the matron holding a tiny mite humanity. She showed us its little deormed hand. Its life was numbered thus far by hours. As it was ushered into the mystery of life on the old hospital boat ast Sunday, a strong man in his prime was crossing the bar into the unknown. The incorrigibles in vice find a haven here when the storms become too sever to be borne by even these experienced

mariners on the sea of sin.

Jim Corbett's brother is here; he is an opium fiend. We wonder if the big Caliornia prize fighter knows of it. In one erth lay an old man totally blind; in another a man was dying with some loathsome disease. A boy was carried to his chair unable to stir hand or foot with rheumatism. There was a man in a drunken sleep with his head on the table. An old man battered and bruised, with his arm in a sling, sat by the stove. A wayward girl came an I knelt by the matron as she held the little baby, thus showing the love that makes the world

For the first time we now listened to the story of Dr. DeSoto's work among the fallen, how he preached in a hall in the city, often sheltering the outcasts, where he had spoken to them of divine love, of divine pity. This work makes his life the grand thing it is. He had to leave the hall; the owner wanted it for a sal Wandering along the wharf one day he found this old boat lying on its side. He bought it, cleaned and refitted it, and it has become a permanent institution. Dr DeSoto is away in the mountains working hard to get funds for his work. As we leave our hearts uttered a benediction on this tireless worker in the slums. We passed a priest as we went our way into God's beautiful sunshine. "Poor Lawrence, he is going fast," said the matron as she passed the priest. There was n need to tell the rest of the story.

It was our first contact with real vice and its awful consequences. Where had we been? Was this the same beautiful bout her life.

It was just such an evening when he world we had always lived in? Like one

stands on the public square. You remember what a fuss was made over this Totem pole, which was taken from the Alaska Indians by some enterprising gentlemen, who were on an expedition there. They had to pay for it, o be sure. This pole is 30 or 40 feet high, with huge, grotesque figures carved on t of men and animals, such as were never seen by mortal man. It is carved out of a great tree. These totem poles mean as much to the Indians as our flag does to us, with our family traditions thrown in.

We lunched downtown and afterwards we took the street car to the Florence Carrington Home for the Unfortunates. The way led past Brighton Beach, on Lake Washington, far out among the woods and hills, with the most bewitching scenery on every side. We found the home a spacious mansion. It is complete with every comfort. It is situated at a sloping hill, and it overlooks Lake Washngton. Here the unfortunate girl may ind a permanent home if she tries to deserve it and wishes to stay. She stay here six months at the least. children nestling in girlish arms told the old sad tale. The sweet-faced matron told us the story of sin under its gilded form. It was far removed from the life we saw pictured in the old hospital boat; yet we wondered wherein lay the differ-

ence between the two.

The sunset lights up the mount with grandeur no pen can describe, as it stands like a sentinel of the eternal in its white splendor guarding the city, although it is many miles away. It stands there as shadows fall over Lake Washington and the Sound, with their ships from strange lands; the lights innumerable flash forth on the hills and the farce called life is still being played on to the end.

ELLA CARPENTER.

Whatcom Co., Wash. (To be continued.)

Written for the RURAL WORLD. OUR PECULIARITIES.

"To be sure," as an old aunty used to say, "we can not all belong to Solomon's first family of children," consequently we lack wisdom and will sing in our foolishness to the baby, "Heydiddle," and a lot of nonsense we learned from "Mother Goose." We tried to sing a minor about judgment day to him, and the little mouth drooped pathetically, tears gath-ered in the pretty eyes and so we went back to luliaby and hey diddle-diddle.

In the short life I have lived, I have found out that "life is real and life is earnest." I have gone to meeting and heard preachers preach their graveyard sermons, opening wounds afresh that time had partly healed, and heard the sing-ing of doleful songs to poor old broken-hearted mothers and fathers, and the good derived (7) well, perhaps, I lack the faculty of discerning—but in my foolish-ness I would rather the sermon had been

Tuesday we left the Second avenue trained nurse could not be obtained, and neighbors are wealth jostle fellow-men with desperate and yet if I am thankful for a happy,

"Never give up when trials come, Never grow sad and blue. Never sit Jown with tear and frown But paddle my own canoe."

A homekeeper has not time to repine or there are the cooking, washing, iron ing, mending, sewing, gardening, chickto feed, etc. baby to take care of. be pretty spry to get around to it all; and something quick like "Hey-diddle-diddle, the cat and the fiddle" is the tune to step

The Ozark hoe that Idyll spoke parts. bout, that thick, dull, back-breaking implement, that everyone views with dis-may and disgust, is one bad peculiarity. There was only one person I ever knew that knew what to do with it. He was just a lad my husband hired to chop some weeds out of a corn field. The boy chopped along in the hot sun with that bark hoe, and at the end of every row (It was in a river bottom) he could see the cool shady trees leaning over the rippling water. A boat tied to oot of a tree added temptation to the ullurement, and—what human boy could withstand it?—when his employer hap-pened down to see how he was progressng, he found—a boy lazily paddling at around, with the Ozark hoe dragging through the water at his side. A call, 'Fred, what are you up to?" and the poy looked up at first with astonished onfusion; then with great sang froid he If he had tied a rock to it and sunk it.

who could have blamed him? We have our own peculiar grammar, or rather lack of it. Our plural is often made by adding es where s only should be used. For instance, a neighbor woman came to me and asked me to cut a dress pattern for each of her girls. She aid: "I want them made tight waistes in front and basque-es behind.

Then, too, it is always "hens' nestses. We always speak of sorghum molasse as plural number. And it certainly does seem, about making time, that there is great "many of them" spread about.
I have often visited in St. Louis,

at the age of 16 attended school there. think the reunion that Ina May spoke about would be enjoyable. I for one would like to be there. I think you will need a log cabin representative. I would arefully brush all the hayseed from my hair, practice eating with my fork, buy a ready-made dress, and if I did not forget myself and say "Please pass them mo who would know I was fresh

from the Ozark Mountains?

After reading Mrs. McVey's instructive letters and forming good resolutions, such as hunting up my rhetoric, not writing until I had an interesting topic, etc., here I find myself scribbling away, and some ne will have to add ly to my words punctuate, make capitals, spell correct-ly, and make parts sensible that are senseless, which will be hardest of all. Wright Co., Mo. PINE BURR.

Written for the RURAL WORLD.

The item in Ina May's article regarding mounting photos, reminded me that I have a nice, practical book of recipes, all columns of the RURAL WORLD, dating back three years; and ght some one else might the idea was suggested. were a great many articles I would like to have had, but I have to discriminate for want of room. I used an old book cutting out every other leaf. I cut out the recipes, and at odd times pasted them on the leaves with mucilage. I would ge so interested in the work that I could hardly stop. There is something fascinating about it. The younger members of the family would enjoy the work. first I thought of saving the cooking recipes that I had tested, but I found so many other things that I decided to have a general assortment. So I have swine calf, colt and poultry departments; also "Ye Editor's Hunting Trips," letters from Florida and California, as the authors of them have written to us per sonally, some of Mr. Heaton's letters some of the Home Circle letters that were so bright and helpful that I just if in mockery at the narrowness of self had to save them; then there was Eugene Field's "Jes 'fore Christmas." "Auni Letty's Pumpkin Pies," and a number of other little poems. My friends (some of them) laugh at me for spending my time pasting, but I enjoy it, and my book will be full of valuable information. Every housekeeper knows that papers accumulate, and are difficult to keep, but in this way we save the cream in a handy book

of my grandmother's. Then in all love stories, the love-lorn maidens and heart roken swains died when crossed in love It is different now. The style of love stories has changed, but "all the world loves a true lover."

If at any time through unforeseen cir cumstances I should not have the RU-RAL WORLD, I will have the book. Will "Ina May" favor us every weel with one of her truly delightful letters I enjoy "Sunny Slopes" letters, as lived a year in the Ozarks. Good bye YOUR AUNT SARAH.

Champaign Co., Ill. Written for the RURAL WORLD.

Kindness-that's a pretty combination of a kind, kindred spirits. Two or more of a kind make a company or a class hearted mothers and fathers, and the good derived (?) well, perhaps, I lack the faculty of discerning—but in my foolishness I would rather the sermon had been more comforting, the singing more cheerful.

I admit that until I was about 13 the world to me was a world of romance, of flowers, music, sunshine, and I lived among my books. I was not fit to meet the world; but since then I have known what it was to lose by death a dear, loving mother. I have had hard times to knock at the door and been buffeted about, here and there, among different classes of people, but I don't think all this has made me a melancholy misanthrope. In this country, where a hired throne, in this country, where a hired throne in the family where a hired throne in the family where a melancholy misanthrone. In this country, where a hired throne in the family of the family in the family With a spirit of charity for all, we will this has made me a melancholy misan-thrope. In this country, where a hired public. Clark Co., Mo.

WHAT IS A LADY?

What is a lady? Oh, not a pert miss,

ourted by many, but honored by few; Pitied and shunned by the honest and

Learning false art in frivolitie's school, The toast of the rake and the fop and the

fool; Flaunting her beauty at concerts and by accident will leave no mark after hav balls Skating-rinks, operas and afternoon

Singing slang songs in unmusical tones, Or whispering foul scandals with "Dear Mrs. Jones." What is a lady? An angel of light,

Toiling for others from morning till night; Modest. retiring, wise, thoughtful and kind

Bearing her gifts to the cottager's door; Honored and loved in the homes of the

acred her smiles for the fool or the

Though wise men and true men, would die for her sake: Dignified, sensible, patient and brave, Simple and natural, tender and grave Greeting the weary with soft loving

The friend of the children, the flowers There is love in her glance, there is

balm in her smile; Her lips breathe no scandal, her heart knows no guile; the side of the cradle she trills her sweet song;

Busy, industrious all the day long. What is a lady? A blessing to life, All worthy the title of "mother" 'wife.

Trained in the school of religion and truth omfort to age, and a guardian to

Black, brown, or golden-haired, she mus be fair. or peasant, her life is a prayer: This is the lady that Nature hath made.



"Where did you come from, baby dear? Out of the everywhere into the here. Where did you get your eyes so blue? Out of the sky as I came through. What makes the light in them sparkle and spin? Some of the starry spikes let in.

Where did you get that little tear? I found it waiting when I got here."

The fact is as sad as it is true that the baby finds the tear waiting to dull its blue eyes, and stain its soft cheeks. At the first it "has no language but a cry." Its one necessity is but to give expresion to its suffering, and for that a tear suffices.

The mother who stoops in anguish over the wailing child would do any-thing to ease its suffering. But she is helpless. The time when she could have ne so much for her child is past.

helpless. The time when she could have done so much for her child is past. She did not realize that in those anxious nervous days when she shrank from the ordeal of motherhood she was preparing suffering for the baby.

The path of motherhood is soothed and made easy for those who use Dr. Pierce's Favorite Prescription. It gives physical buoyancy and mental brightness. It tranquilizes the nerves, encourages a healthy appetite and induces refreshing sleep. It gives the mother strength for her hour of trial, and the confidence and content which come from strength. It makes the birth hour practically painless, and by increasing the natural, food secretions, it enables the healthy mother to enjoy the happiness of nursing her child.

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A Mother's Gratitude.



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Dining-room tables marked by ho dishes can, with little pains, be render impervious to any reasonable degree heat in dishes by treatment in the fol Calling them "angel" and "darling," and "dear;"

"dear;"
Always affected and never sincere;

Always affected and never sincere; Dressed to perfection, rouged, perfumed tilled vinegar, one ounce of spirits of said 2 ounces of butter of antimony. The Known not beyond her own frivolous table to be washed on alternate days-the first day with boiling water, the sec-ond with the above mixture, and the third with vinegar. If this process is re peated for a little while the table wi come hardened against the encre ments of hot dishes placed upon it with-out a mat, and anything spilled upon it

FORGET

ing been wiped off.

Put a seal upon your lips and forge what you have done after you have been kind. After love has stolen forth nto the world and done its beautifu work, go back into the shade again and say nothing about it. Love hides ever from itself.—Drummond.

SOME GOOD RECIPES.

STRAWBERRY CHARLOTTE.-Make a boiled custard of one quart of milk, the yolks of six eggs and a small cup of sugar; flavor to taste. Line a deep dish sugar; havor to taste. Line a deep disa with slices of sponge cake; lay upon these ripe strawberries sweetened to taste; then a layer of cake and straw-berries as before. When the custard is cold pour over the whole. Beat the whites of the eggs to a stiff froth, add a tablespoonful of sugar to each egg, and put over the top. Decorate with large,

FRIED PORK.-If your pork fries white and limp try frying it in butter; that will brown it nicely and make it look more appetizing. If the pork is old and strong slice it and leave it in cold water over flour and fry in butter. If for dinner change the water in the morning, then take out of second water at noon, sprinkle with sait and pepper, roll in flour and fry in butter. This makes a big improve

SCALLOPED CHICKEN. - Dress oung chicken, cut up in the same man-er as you would to fry; flour well. Have one tablespoonful of butter and one of lard, hot in the spider, lay the chicker in, sprinkle with salt and pepper. When one side is browned turn over and pour over it one pint of boiling water. When one becomes tired of plain fried chicken there is nothing nicer than the above.

FRUIT CUSTARD.—A delicious "fruit custard" may be made by boiling one uart of milk in a double boiler. Bear wo eggs very light and stir into them our tablespoonfuls of sugar and one ablespoonful of flour. Add to this a little old milk, then stir it gradually into the coiling milk, stirring until it thickens; et it away to cool. When cool, flavor with vanilla. Have ready in sauce dishes

strawberries or sliced oranges, or any fruit in season and pour the custard over it. This is a very simple and palatable QUICK FRUIT PUDDING.-Grease nall dripping pan and spread bottom ith fruit. Little quantities of different kinds can be used and should be moist nough not to burn. Pour over it evenly he following batter and bake: One egg, half cup sugar, one cup of sweet milk, one and one-half cups of flour, one spoonful butter, baking powder one heap-ing spoonful. Turn out on plate, and eat with sweet cream. This recipe is large enough for six.

Poultry Yard.

THE INCUBATOR.

my father bought an incubator heated hot water. I took charge of it and ied to follow the instructions as best I ould. I did fairly well with the first atch until the eggs began to pip. My intructions were to close it up and let it ilone. I did so, and took out 120 chicks and some 30 or 40 dead in the shell. The ext time I opened it up two to three mes a day and got 180 with very few lead in the shell. The third hatch, now off, was about the same as the second, with 160 chicks from 249 eggs to start with. I am told by experienced poultry raisers that two-thirds under hens is ROSE ROBERTSON. Moniteau Co., Mo.

INCUBATOR EXPERIENCE.

A very general experience this seaso with incubator handlers is that the yolk of the egg is not absorbed into the body. "Favorite Prescription" contains no alcohol, neither opium, cocaine, or any other narcotic.

and sometimes adheres to the shell at the twenty-first day. Some attribute this to the eggs not having been properly turned, and others to their having been turned too often. A more likely cause is in their having been in a too

In incubation two forces come and play, one represented by heat of the ma-play, one represented by heat of the ma-it is warmer, but if no building is suitable erect a building of cheap hemiock lumber. This building should be made so that adlow one another. Therefore, the embryo, to develop perfectly, must not be sub-jected to a constantly even temperature, but there must be intervals of rest from heat, so the nutritive elements can do their part. Eggs from the same source were set under two hens. One nest was ander the bushes in the garden and with the hen free to act her pleasure. The other was in a house and with the hen a prisoner in the covered nest except for a brief time off for feeding, when she was hurried back under cover again "lest the eggs should become chilled." The first gave a healthy, lively chick for every egg, while from the second part had died in the second week, part of those living through had not absorbed the yolk sac, and the two that came out whole died

evaporation of the liquids of the egg, and of those that survived to the last the embryonic growth was ended too quickly, the structure of the body being complet-ed without a sufficiency of the nutritive material from the yolk sac being absorbed and with the abdominal cavity too re-stricted to receive it. In like cases, some-times, the yolk sac is forced inside, when the chick dies of suffocation, in that the sac crowds upon the vital organs. Rec-ognising this danger, the attempt has been made to cut the sac, and arter to cutside cag leasing part of the contents, trusting to This must nature to absorb the rest. Chicks have acceptable but have al-

DAVIS-CRAMBERS PARNESTO RCKSTRIN BRADLET BROOKLYN New York JEWETT ULSTER Cleveland

SOUTHERN SEIPMAN COLLIER RED SEAL JOHN T. LEWIS & BROS CO MORLEY BALEM CORNELL RENTUCKY Louisville.

ways been weakly and worthless for very purpose.

The complaint is general of the large rcentage of infertile eggs and of weak

chicks from those that do hatch. Mr. James Cheston has the unique experience of eggs hatching well that he sends away, even a lot sent to British Columbia hed only one infertile egg, while those set at home are unsatisfactory. In one series of yards in New Jersey 2,000 eggs were set and 300 chicks are all there is to show for them. In another locality there are 50 chicks from over 300 eggs. A Pennsylvania owner reports 22 chicks from 126 eggs. The other extreme tle farm near the seashore, in South Jersey, where the birds have scarcely any attention, having no one about except on Sundays. A hen set on eleven eggs brought off ten chicks, one egg being

This lot of poultry, numbering forty birds, mostly cross bred, have a constant supply of corn, millet once a week and mixed feed with meat on Sundays. They have free range and plenty of water They came through the winter ckness, but with never a time in which ome were not laying. They are in good ondition, as shown by the vitality the eggs set. Three other hens are d come off next week. In neither nest are there clear or addled eggs, and none have been broken or replaced. The inference from the experience might be that poul-try in general is given too much care. George Corson, in commenting upon the experience, says his birds have ne so well as this year, when in of a man who cares nothing for them, and gives them food when he happens to think of them. The birds, however have plenty of range and water.—Produ Commission Merchant.

WHOLESALE DESTRUCTION OF LICE

To completely rid the poultry house of ermin, go after the pests with a torch and in this way to prepare: Make the torch first. Dissolve one-half pint of pine tar and one-half pint of turpentine in one-half gallon of kerosene, in an open essel. Soak in this solution large corn obs until they are well saturated take them from the solution and dust on them all of the powdered sulphur that will stick to them. Next, have a small pointed iron rod, of which insert the pointed end into the large end of the cob hen you have saturated torches ready or use. Removing all the combustible natter from your poultry house, enter with your torch, ignite it, and go to work, permitting the flames to enter every crack and crevice all over the surface omentarily, and you have all the lice estroyed. This should be done once nonth in warm weather. It would well and wise to have a tub and a few uckets of water handy in case your poultry house should ignite from your torch.
All poultry houses should be well whitewashed with fresh lime. Whitewash with lenty of salt in the wash inside of the hey may cause the hens to take cold All dips that can be used avail nothing unless the poultry house is clean, as the hens will soon become overrun again with lice. Just as soon as the lice leave the poultry house the hens can clear their bodies by dusting in ashes or dry earth. The heads and necks should be rubbed with melted lard once a month, to kill the large head lice. If a dip must be used ar a gallon of boiling water on a pound of tobacco refuse. Let it stand over night and then add two gallons of cold water Dip the hens on a warm, dry day. do not use a dip if it can be avoided. Try insect powder in preference.—Exchange.

BUILDING FOR RAISING SQUABS.

A practical pigeon breeder gives the ollowing directions for building in "American Farmer": A few explanation as to the building and its fixtures, which may be termed as breeding-houses, may interest the readers. As I said before, ontinuous high temperature.

In incubation two forces come into ditions can be added at either end with out injuring the other part. It should be built upon dry ground, facing the south, and be about nine feet high front, seven feet high back, ten feet wide, and any desired length; divided into roceight feet wide, each room will comfo ably house thirty pairs or sixty old birds. A window is to be put in each pen on the south side; also on the south side must be the cages. These are made twelve feet wide, seven feet high, and as long as the building. To correspond with the rooms inside, the cage must be into cages eight feet wide. Use poultry netting, one or two-inch mesh and wire over top as well to keep them enclosed. The interior of the breeding-house must be fitted up with nests similar to chicken nests, but somewhat smaller These nests should be two feet long, a foot wide and a foot high. A partition six inches high must be put in the center of each nest, thereby making two nests a foot wide. This is done as each pair requires two nests. When a nest is built the eggs are laid, and immediately they commence sitting (the male bird taking part also), and in eighteen days the eggs hatch. The parents care for the young until they are two weeks old, when they commence building in the adjoining nest, commence business in the adjoining nest, and lay other eggs, thereby having eggs and squabs all the year round, excepting a few months during the moult. In the outside cage have a receptacle for water. This must be given fresh every day, and several times a day in summer or warm

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THE IOWA SWINE BREEDERS.

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"The Important Period in the Development of the 'Pig," by Harvey Johnson;
"Development of the Boar," by H. C.
Strator; "Care and Condition in Farrowing Period." by J. W. Stribling; "The Type for the Farmer," by I. C. Wright; "Pre-paring for the Sale," by Cary M. Jones; "Present Outlook for the Business," by W. M. Lambing. This is a series of sub jects that will interest the hog raiser and should draw a good attendance. The sec-ond day of the convention is devoted to practice in judging hogs by the score card system. This feature will be conducted the National Association of Expert Judges of Swine.

Geo. S. Prine, Oskaloosa, Ia., is the zec

WHEN THE HOGS DIE.

The time of greatest fatality among hogs is where they are compelled to sub-sist for any considerable time on the dry and most concentrated foods, says the 'Indiana Farmer." In all experience that is the condition of the greatest aliment in human life. When the hogs are turned into the autumn stubble fields and left to ean on the dry, concentrated food there obtained, if ever hog cholera or any other disease occurs that is the time, at least this is so generally speaking. It is not so much because the seeds of the disease are more prevalent then, but because the hog is forced into a condition which makes him most susceptible to the seeds of disease more or less always prevalent. No animal, not even man, was ever intended to subsist alone on dry, concentrated foods, and the human animal knows too nuch to risk his health on such condiions. What the hog needs along with hese concentrated foods is an occasional succulent ration. With the abundant oportunity to provide for him, clover and ape and beets, artichokes, and even rape and beets, articioness, and even silage, etc., there is no reason why he should be abandoned to the conditions which invite disease and death. There is ot a month of the year when an occasional succulent ration could not be pro-vided for the hog. This, with pure water yould enable him to resist and throw off the germs of disease always prevalent, and sufficiently frequent to kill when sub-jected to conditions inviting death.

LACKED ONLY A FEW HEAD.

Packing of hogs at Kansas City for the week ending May 18 amounted to 13,466. This was within a stone's throw of the largest on record, which was 94,225 in the rst week of January, 1898. That was the only week to exceed last week's total and a difference of only 759 head. Last week's output showed a gain over the correonding week last year of 30,190 head. Total receipts of hogs last week were 95,984 and shipments were 3,387. Out of 12,400 received in the corresponding week ast year, there were shipped 8,100.

Cattle slaughter last week was, with one exception, the lightest of the year, al-though the proportion of the receipts which ran to killing grades was the largst in some weeks. Shipments of feeder ere only 5,485 head, also the smallest of the year. The sheep slaughter amounted to 14,535, a falling off of 3,133 from the me week last year.

Actual driveouts from the yards to each of the various local killers last week were as follows, with comparative totals:

Totals 14,857 93,465
Previous week 18,934 90,585
Same week last year.17,612 63,276
—Teleg

FALL PIGS.

Many farmers object to fall litters

that the openings are closed in cold weather I can get as good results from winter litters as from the spring pigs, and

taking a series of years I find that I have

received a somewhat higher price for my fall litters sold in the spring than from those that were farrowed in the spring

and sold in the fall. I think also that a

rule the sows are in better condition fo

farrowed in the early spring, especially i

March. In this latitude we rarely have

cold storms or severe winter weather un-til late in November and frequently not until the latter part of December, so that our pigs are well started before the weath-

HOW THE MODEL HOG HOUSE WAS

According to my promise, I propose to tell you briefly how I built that hog house of mine so cheaply—which is the most

from a sow that raises large litters. Mind, I said raises large litters. Some sows farrow large litters, but never raise them, preferring to mash one every time she changes her position. From a sow of this sort I would not use Cattle, Hogs. Sheep.
Armour 4,585 31,391 4,239
Fowler 131 13,016 1229
Schwarzschild & S. 5,025 10,401 3,301
Swift 2,2398 22,701
Cudahy 1,725 15,511 1,648
Ruddy 24 692 157
Omaha Packing Co 564
Small butchers 163 144 628 as a breeder one of her pigs, no matter how fine an individual, for I have found that pig mashing is hereditary with some

In selecting the boar get the very best you can afford to buy. Don't let a few dollars cause you to take one "just as well bred," but not near so good an indi-14,535 20,525 17,668 vidual. Don't turn the boar out with the sows

grass, at some distance from sows. If placed in sight or hearing, he will free thinking that they require more care through the winter and that they do not get as large returns for the feed, writes Waldo F. Brown in the "National Stock-

If you have not the pasture or plenty of roots, feed about two-thirds ship-stuff man." That it requires more care I admit, but the farmer has more time to care for them. I think with a good warm house and an attendant careful to see the careful t

feed twice per day, noon and night.

About a week before farrowing, place
the sow in separate lot so that she will get accustomed to her house or pen. Give plenty of wheat straw for bedding, shredded fodder or dry leaves, wheat straw preferred. This she will have broken up by farrowing time, and should there be too much of it, take some out. If it is not

Under no circumstances should you put in long straw just before farrowing, for the little fellows will get tangled up in it, and no matter how careful the mother is, some of the pigs are liable to be killed or injured.

When the sow comes out and acts like she wants something to eat and drink, give some lukewarm water. At the next a handful of shipstuff, gradually increasing her feed until she is on full feed at from two to three weeks. Don't overfeed at any time, but keep them so they will always clean up readily what you give

and applied the drawing knife to them, making nice and smooth and capable of years of service. Then I split out the not milk, use water. Gradually increas the feed, and by the time pigs are eigh the feed, and by the time pigs are eigh weeks old, cut off on the sow's slop, and pickets for the partitions and served them the same way, and then secured a load of sheathing from a local sawmill. It was she will wean the pigs herself in a shor

THE RAISING OF THE PIG.

cull stuff and cost me \$1.50 a load; it made

not only the sheathing, but the ties on which to nall the pickets for partitions. For rafters I used hewn poles that cost 50 cents a load. Next I had to have twenty-

two posts which cost 10 cents apiece. Then I got my siding from the flooring of an old house given me for the taking down.

This left but little to buy-twenty-four

pairs of hinges, 110 pounds of spikes and about 100 pounds of nails.

You see, it was will power and elbow

oil, things which have done wonders or

the farm, that entered largely into the

construction of this hog house. Let me say that I do not live in the timber; ev-

ery stick of timber referred to

hauled a distance of at least ten miles.

BREEDING, FEEDING AND HAND-

A good choice of broad sows is the first

thing to consider in the breeding and rear-ing of hogs. I would select full blooded

English Berkshire sows, as they are good

row be their third one, as by this time

they will be at their best. Breed them to

a fully developed, full blooded Poland-China male, as this makes an excellent

either breed. Have the sows farrow the

near all the same age as possible.

Begin feeding sows new corn as soon as

pigs are large enough to follow. Have a

to eat, thus favoring the sows very much

The sows should have plenty of good slop and new corn and a good clover pasture while pigs are sucklings. Let them run

with their mother until three months old.

Have rye sown for winter pasture. The

will not know when they were weaned

By the time the best of the pasture is

gone they will be four months old and ready to begin feeding for market. At this age they should weigh one hundred

pounds each. Then for every hog fed

purchase 100 pounds of shipstuff or mid-ilings from wheat. Feed this in the form

of hot slop with milk, and give light feed

of corn and plenty of slop the first half

f the winter. Decrease the slop and in rease the corn through the close of feed

ng; keep the feeding place clean, good

through any hot sultry weather, when

SUCCESS IN HOG-GROWING.

selves at the start. Commence with two

to five sows and go slow.

In the selection of sows, no matter what breed, select large, lengthy, roomy

sows or gilts. If one is bad in the back,

either drooping behind the shoulders, or

sunfish shape, don't take her. Don't take one bad on her feet, or cut too high be-

Get sows or gilts that show vigor and

holera is most liable to attack hogs, and

having learned to eat quite young having access to good pasture, they

As far as the cost of the feed goes, the first 100 pounds gained by a pig are the cheapest. After that weight is reached, growth becomes slower, and the cost per pound increases, writes J. L. Van Arsdale in "New York Farmer."

dale in "New York Farmer."

The piglet must contend with worms, scours, thumps, constipation, lice and skin disease, besides possible faults in housing and bedding, and while all these things are bothering him, he is expected to make his greatest growth in the shortest time and at the lowest cost.

The piglet that comes into the world

with a squeal and keeps on squealing night and day in spite of the best care, enerally squeals itself to death in three, five or seven days. The squealing is a sign that the sow was in bad condition during pregnancy and farrowing, and her bad condition naturally passed to her progeny.

The piglets should be cared for on ar-The pigiets should be cared for on arrival. Place them in a warm, dry box, with a blanket over the top, until they are dry and comfortable. Then, if the sow appears quiet, they may be left with sow appears quiet, they may be left with a solution of the sheep. Again, the greatly important of the sheep after because of mothers and very prolific, writes W. R. Murfin in the "Indiana Farmer." Have them in choice condition, and let the farthem alone with her. Permit them to suckle once every three or four hours, and return them to the box until the sow has settled down and is ready to perform her parental duties properly.
Young piglets that are healthy should cross, giving the pigs heavy bone, and producing good growthy feeders. I believe they will make better hogs for the mar-ket than if they were full blooded of

begin to grow right away. Standing still in size means runtism

Filthy quarters for pigs mean skin dis-

1st of September, and have the pigs as When the pigs reach their sixth week, vatch out for worms. whey and creamery milk will answer or food for pigs after they are six run for the pigs away from sows, leaving feed in the same, and by the time they are four weeks old they will have learned

nonths old. Before that age is reached, reamery milk and whey mean scours. Don't keep feed in soured, fetid, musty ill-smelling barrels, boxes or vessels. Al ad smells indicate conditions that favor the growth of bacteria, and many varie-

Don't overcrowd the quarters devoted o swine. You would better have too few

han too many swine. Large litters are all right when they re all right. Often they are all wrong. hen nothing can make them right. 'he profitable sow is one that produces cod-sized litters of pige that live and

Pedigree does not mean all this. Lack of pedigree does not imply the tsence of all this. IOG CHOLERA AND SWINE PLAGUE.

Dr. D. E. Salmon, Chief of the Bureau

f Animal Industry, gives the symptoms f these diseases, as follows: There are first seen the signs of fever, warm sleeping quarters. At the end of even months these hogs should weigh 200 counds each. They will not have passed shivering, unwillingness to move, more or less loss of appetite, and elevation of temperature, which may reach 106 degrees I believe will be as profitable to the farm-er as hogs fed any other time in the to 107 degrees F.; the animals appear stupid and dull, and have a tendency to hide in the litter or bedding and remain cov-ered by it. The bowels may be normal or constipated at the beginning of the attack, but later there is generally a Writing on successful hog-growing in liquid and fetid diarrhoea, abundant, exthe "Swine Advocate," J. A. Tuttle, of Vineland, Missouri, says: One mistake made by beginners is overstocking them-

hausting, and persisting to the end. The eyes are at first congested and watery, but soon the secretion thickens, becomes yellowish, accumulates in the angles, and gums the lids together. The breathing is pressed and labored in the later stages There is a cough which, however, is not very frequent, and generally heard when the animals are driven from their beds. It may be a single dry cough, or it may be paroxysmal. The skin is often conrested and red over the abdomen, inner surface of the limbs, under surface of the eck, and on the ears. The color varie from a pinkish red to dark red or purple An eruption is sometimes seen, which leaves crusts or scabs of various size over the skin. There is a rapid loss of flesh, the animal grows weak, stands with arched back, and abdomen drawn up, and

walks with a tottering, uncertain gait There is less and less inclination or ability to move, and the weakness and ex haustion increase until death results.

The symptoms of swine plague in many cases are not noticeably different from those of hog cholera. Frequently, how-ever, the lungs are extensively inflated in swine plague, and in that breathing is more oppressed and labored, and the cough more frequent and painful.

The course of these diseases varies from one or two days to two or three weeks.

PIG PEN POINTERS.

HARRIS & McMAHAN, Lamine, Mo. Farm, write us that they have sold their tock out so close that they will not show at the fairs this year. Of boars ready for service they have for sale only two yearling boars, but these are first-class; they have been used to a considerable extent in the Sunnyaide herd, and this is proof enough of their quality. Any one wanting a good boar should not overlook these. They have a fine lot of pigs now ready for shipment, also a few gilts un-der one year that will make show stock. Look up their advertisement and write

J. R. YOUNG, Richards, Mo., is advertising Poland-China hogs and Shorthorn bulls in this issue. The great show and breeding boar, Missouri Black Chief, was farrowed Mr. Young's property, and he developed and showed him in his twofeeding time if she is out, give water with a handful of shipstuff, gradually increasing her feed until she is on full feed at from two to three weeks. Don't overfeed sows by Missouri Black Chief and 30 fall tell you briefly how I built that hog house of mine so cheaply—which is the most important part of it with some of us, writes A. T. Doerr in the "Grange Bulletin." If it is a model, it must have this most important quality: that it comes within the reach of the average farmer. Where there is a determined will there is a determined will there also is a way. After I planned my hogs bout farm lands is the West, cash is postage stamps for a tubestription to Tus Coan BELT, am St., Chicago.

The Corn Barcan.

The Corn Barcan and Italian the West, cash is postage stamps for a tubestription to Tus Coan BELT, am sol, then ext thing was to get it on the farm. Like many another farmer, I am not always checking it at the highway commissioners for a bridge they were about to replace with a new one. They said that if I would take out the old bridge and fill up the abutments of the new one when the latter was completed, they would give me the old bridge, and to this I agreed, taking out the bridge and from H. & St. Jos and M. K & T. B. B. I the search of the case of the search of the search of the search of the dam a teaspoonful of tincture of kino or tincture of catechu. Should they still over the dam a teaspoonful of tincture of kino or tincture of catechu. Should they still over the dam a teaspoonful of tincture of kino or tincture of catechu. Should they still over the dam a teaspoonful of tincture of kino or tincture of catechu. Should they still over the dam a teaspoonful of tincture of kino or tincture of catechu. Should they still over the dam a teaspoonful of tincture of kino or tincture of catechu. Should they still over the dam of the dam of the dam of the case of the dam of the case of the dam o gilts by a son of Missouri Black Chief, who is a litter mate to Mr. Axline's great

The Shepherd.

MISSOURI SHEEP BREEDERS' ASSO-CIATION.
Norman J. Colman, President, 121 Chemical Building, St. Louis, Mo. L. E. Shattuck, Secretary, Stanberry

WHY SHEEP SHOULD BE MACHINE

We are asked a great many times. Will It pay to buy a sheep-shearing machine? Our answer is that it will pay a sheep owner if he has twenty-five sheep or more to invest in a hand-power sheep-shearing machine, the price of which is \$15, says an exchange. The principal advantages of exchange. The principal advantages of shearing sheep by machinery are as follows:

Sheep are not butchered or racked as we have seen them done by hand; the machine leaves them as smooth as a billiard ball. Then, again, there are no second cuts, which depreciate the value of the wool. The staple is left longer, which acreases the value of the wool from on proved appearance of the sheep after be ng machine-shorn must be taken int nsideration, which is an importan item. They can be dipped or sent to the market immediately after shearing. Un-like the hand shears, no skilled labor is required, and sheep can be shorn mucl faster by machine without the operator being troubled with sore wrists, as when using the hand shears. Shearing with the nachine is so much easier and does the day's work is done you feel satisfied that it has been well done.

RAPE AND ITS CULTIVATION.

Purdue University Experiment Station

Rape is a succulent plant belonging to the cabbage family. It grows rapidly, making a large amount of green food, upon which pigs and sheep grow well. To make a success of rape, select a rich piece of land free from weeds. Plough deep, then roll—if not too moist, and harrow till the soil is finely pulverized and well firmed down. Finish the preparation by running a plank drag over it. Such a seed bed will germinate the seed quickly and enable the plants to withstand dry weather. I prefer to have the ploughing done just before sowing. This will give the rape an even start with the weeds.

ounds, or five pounds broadcast When drilled the rows should not be more than 20 to 24 inches apart. Drill sow-ing will permit cultivation, which will keep down weeds, conserve moisture and increase the yield. Where drilled the ani-

with garden seed-drill, three

mals destroy less as they walk, and lie down between the rows.

If sown broadcast cover with harrow or weeder and roll. In many cases it is well

to roll the drill-sowing also.

The season will control time of seeding Do not sow until the ground has become warm enough to quickly germinate the seed, as it comes up better and grows more rapidly. Usually it should not be sown before the middle of April—in this latitude of north central Indiana. It is best to sow at intervals of ten days to two weeks. By the use of low hurdles, this will give fresh pasture throughout the season, as the early sowing can be grazed off a second time. This also makes

it so much. Rape may be sown in the corn just before the last cultivation. If the soil is not too dry, it will grow well unless the corn is very large and thick. Where thus sown it makes splendid pasture for lambs from September till cold weathe

Some men have had success in sowing rape with oats. This, however, is not a sure way, as the season will have much to do with it. It is a good plan to have the rape patch

near the barns and alongside of the pas-ture. This brings the animals under the stockman's eye, and if a lamb "bloats" he is there to give it attention. If the sto can go freely back and forth between the pasture and rape, it will save trouble, time, labor and even loss. Rape thus supplements the pasture, making fat ambs and good pigs.

Where sheep have access to both rape and grass, they should not be turned on the rape until the middle of the day, when the animals are not hungry en to gorge themselves, and the rape is free from dew. If they do not have the run of the pasture, turn them on the rape for an hour a day, gradually increasing the time unt# they become accustomed to it. m on it continuously till

the end of the season.

J. H. SKINNER, Assistant Agriculturist. C. S. PLUMB, Director. ANGORA NOTES

Mr. Marion Miller of Missouri lately ought ninety head of grade Angora does in Kansas City to clear up his brush lands. He says they beat woodsmen two to one as brush exterminators.

Secretary W. T. McIntire reports the sale at Kansas City during the month of April of a car load of Angora wethers to Mr. A. B. Wilson of Iowa; a car of Angora wethers to J. D. Bickel of Iowa; 130 head Angora wethers to L. A. Mills of Illinois, and a car of high-grade does, two ecorded bucks and four recorded does to L. A. Hart of Wisconsin.

The time is coming when nearly every

sheepman in the country who has rough, broken brushy hill land, unsuited to cultivation, will want and have a flock of Angoras to utilize elements of browsing wealth that not even his favorite woo bearers can fully command. Sheep for the pastures—Angoras for the rocky brush lands. Mutton, wool and mohair—the pas-toralist's money-making trinity.

There is no truth in the statement now going the rounds of the press to the ef-fect that the government of South Africa has imposed an export duty of \$500 per head on Angoras shipped out of that coun-try. A bill imposing such an excessive duty was introduced in the Cape Parliament, but never became a law, Secre tary Wilson's statement to the contrary notwithstanding. The distinguished sec retary is simply mistaken.

Not content with capturing the Angora Registry Association and about all the big goat shows and sales, those Kansas City fellows are trying to corral the whole

Markels Feeding Compound Live Stock



It is essential for the well-being of all animals that they receive a suitable addition to the ration, not only to restore them if out of condition, but to keep them in the most profitable state of health. This is obtained by Lincoln Feeding Compound which is a great improvenent upon and desirable substitute for so-called "Stock Foods." Write for literature regarding this cheap and economical preparation.

PASTEUR VACCINE CO., 56 Fifth Ave., Chicago.

Cedar Lawn,

E. H. Rodgers, Proprietor, n Cattle. Also Mammeti BUNCETON, MO.

FINE BERKSHIRES

Of the best families at farmers' prices. Write for what you want, or what is better, come and inspect the stock W. H. KER, Prairie du Rocher, Illinois.

A YEARLING SHOW BOAR FOR SALE!

That will make a 700 ib. yearling and will show through all of the fairs this year. A few fall gilts will do to show under one year and a fine lot of pigs now ready to ship. Come and inspect them. will treat you right.

Will treat you right.

Lamine. M



are already talking up a scheme for tanning all the goat skins this side of sun-down. By and by they will be scheming to corner the Turkish and South African flocks and clips and leave Bradford, Por Elizabeth, the Massachusetts Plush Com pany and other little concerns out in the cold. And who knows but that in a year or two we shall all have to go to Kansa City for our Angora venison? It won' be long till the goat men will all have to reckon their time from the Lacustrine bluffs of Kansas City instead of Green wich. Go ahead, gentlemen, and do you worst! You can't hurt us, for we have the two nicest Angora rugs ever turned out in Texas, and a billy goat and tw nannies already spotted for our Flambea ranch.—American Sheep Breeder.

LIME-AND-SULPHUR DIPS FOR SHEEP SCAB.

Under the term "lime-and-sulphur dips is included a large number of differen formulae requiring lime and sulphur in different proportions. In general practice all of these dips are spoken of as "the lime-and-sulphur dip," but in reality each separate formula represents a separat

To give an idea of the variety of the ine-and-sulphur dips, the following list is quoted, the ingredients being reduced in all cases to avoirdupois pounds and United States gallons:

1. The original "Victorian lime-and-sulohur dip," proposed by Dr. Rowe, adopted as official in Australia: Flowers of sulphur.....pounds 20 5-6

Fresh slaked limepounds 10 5-12 Water gallons 100 Water gallons 100
2. South African (Cape Town) officia me-and-sulphur dip: Flowers of sulphur (mini-

mum).....pounds 15
Unslaked limepounds 15
Watergallons 100
3. South African (Cape Town) offic 5. South Arrican Cape Town, 1897:
me-and-sulphur dip, February 4, 1897:
Flowers of sulphurpounds 20 5-6
Unslaked limepounds 16 2-3
Watergallons 100
4. Nevada lime-and-sulphur dip: Flowers of sulphur.....pounds 16 2-3 Lime pounds 33 1-3 Watergallons 100
5. Fort Collins lime-and-sulphur dip:

Flowers of sulphurpounds 33 Unsiaked limepounds 11 Water A mixture which, used to some ex-tent by this Bureau, contains the same proportions of lime and sulphur (namely, to 3) as the Fort Collins dip, but th

Flowers of sulphurpounds 24
Unslaked limepounds 8
Watergallons 100 ntities are reduced to:

In case of fresh scab, formula No. 6 rill act as efficaciously as the dips with he greater amount of lime, but in case the greater amount of lime, but in case upon shorn sheep it is believed that this of very hard scab, a stronger dip, as the solution of the stronger dip, as the stronger dip, as

ae, some of the methods laying formulae, some great stress and the sulphur, others laying great stress and the sulphur laying great stres

paste or lime putty.

(b) Sift into this lime paste three times as many pounds of flowers of sulphur as used of lime, and stir the mixture well.

SHROPSHIRE RAMS, all yearlings, for sale; also my stud ram for sale or trade for one as good. Address L. G. JONES, Towanda, Ill.

Be sure to weigh both the lime and the sulphur. Do not trust to measuring them in a bucket or to guessing at the weight. (c) Place the sulphur lime paste in a kettle or boiler with about 25 to 30 gallons of boiling water, and boil the mixture for two hours at least, stirring the liquid and liment. The boiling should be continued until the sulphur disappears, or almost disappears, from the surface; the solution is then of a chocolate or liver color. The longer the solution boils the more the sulphur is dissolved, and the less caustic the ooze becomes. Most writers advise boiling from thirty to forty minutes, but we obtain a much better ooze by boiling from two to three hours, adding water when necessary.

(d) Pour the mixture and sediment into

a tub or barrel placed near the dipping vat and provided with a bunghole about four inches from the bottom and allow ample time (two to three hours, or more necessary) to settle.

The use of some sort of settling tank provided with a bunghole is an absolute necessity, unless the boiler is so arranged nat it may be used very well as a s settling tank. To insert a spigot about three to four inches from the bottom is n easy matter. Draining off the liquid through a spigot has the great advantage over dipping it out in that less commotion occurs in the liquid, which therefore refreer from sediment. (e) When fully settled, draw off the

lear liquid into the dipping vat and add nough warm water to make 100 gallons. iment in the barrel may then be mixed with water and used as a disinfect-ant, but under no circumstances should it be used for dipping purposes.

A double precaution against allowing

the sediment to enter the vat is to strain the liquid through ordinary bagging as it is drawn from the barrel.

In watching the preparation of lime-and-sulphur dips by other parties the Busons who laid great stress upon stirring the sediment well with the liquid before using the ooze. This custom is undoubt-edly responsible for a great deal of the prejudice which exists at present against lime-and-sulphur dips; and considering the preparation of these dips in this way there is no wonder at the immense pre-judice against them in certain quarters.

To summarize the position of the De-partment on the lime-and-sulphur dips: When properly made and properly used, these dips are second to none and equalled by few as scab eradicators.

There is always some injury to the wool resulting from the use of these dips, but when properly made and properly used upon shorn sheep it is believed that this injury is so cities. Nevada (4), or the South African (3) dip, might be used.

Many other formulae might be cited, but these are enough to show the great variations in the dips which have been used; and to prove that when a party simply states that lime and sulphur is an excellent dip, or that it is a dangerous dip, or that he has succeeded or failed with it, or that the lime-and-sulphur dip is injurious. excellent dip, or that it is a dangerous dip, or that he has succeeded or failed with it, or that the lime-and-sulphur dip is injurious to the wool, his statements can not be taken as definite unless he also states which lime-and-sulphur dip he used and how he used it. * * *

Preparation for the mixture.—Almost as many different methods of preparing the liquid exist as there are different the liquid exist as there are different for the methods laying the liquid exist as there are different on the liquid contains the liquid exist as there are different on the liquid should be parfectly possible for the farmer to find several other dip. There is no dip to which objections can not be raised.—Report Business of the liquid exist as there are different on the liquid contains the liquid exist as there are different on the liquid exist as the liquid exist as the liquid exist as there are different on the liquid exist as there are different on the liquid exist as the l jections can not be raised.—Report Bu-

If you feed and water stock, it will pay you to write O. K. HARRY STEEL WORES, St. Louis, for their Illustrate Catalog of Feed Cookers Hey Trodgie, Tanks, etc.

The Markets

WHEAT—Cash Market—No. 3 red sold at 75c this and 75½c E. Side; No. 3 red at 752674½c; No. 4 at 57670c; mixed at 56265c; No. 2 red at 74½c and yellow belly at 74½c. No. 4 spring sold at 57½c. Except 15,000 No. 3 yellow brought 43½c and No. 2 do. worth 43½c. No. 2 white sold at 44½c. mainty to 44½c. No. 2 white at 44½d*4½c. OATS—Cash Market—No. 2 and No. 2 Northern sold E. trk. at 29c and this side at 29½c. No. 3 at 28½de 29c. No. 2 white at 21½c. No. 3 white at 49½de 30c. White at 29½c for common mixed to 30c.

RYE—Steady and quiet. Offerings and demand amail. Grade No. 2 sold del. E. side at 58c.

HAY—Current rates on trk. for timothy

demand shadt. Grade to side at 56c.

HAY—Current rates on trk. for timothy \$13.50 for choice, \$12@13 for No. 1, \$10.50

11.50 for No. 2, \$2@10 for No. 3; prairie \$11 for No. 1, \$3.56@10.50 for No. 2, \$8.50@9 for No. 2. Clover \$3@12

The following to	re and cash gr	range of ains:
	y. Monday.	Closed Monday.
Wheat— July71% a Sept71%@% a	71%@%@72% 71 @70	72¼ 70% a
Corn— July43% a Sept43% n	43¼-%-42%143 43%@%@43%	43 a 43½ b

.28% b@....
.36% 25%@26%,
heat, corn and oats.
Range Range
Monday. Saturday.

No. 3 white.30346.... 304,2630% 23%,2624

COTTON—Local spot quotations—Ordinary, 5 15-160; good ordinary, 6 7-160; low middling, 7 1-160; middling, 7 1-160; good ordinary, 6 15-160; low middling, 8 3-160; middling, 7 11-160; good middling, 8 3-160; middling, 7 11-160; good middling, 8 3-160; middling, 7 11-160; good ordinary, 6 15-160; low middling, 8 3-160; middling, 7 11-160; good ordinary, 10-160; good ordi 25c; Jury, Highs. Angora goat hair—
Long, 15g18c; short and low, 11g12c; burry and cotted, \$8695c. Black and seedy at from 4c to 6c per pound less; i5c allowed on old and 25c on new wool sacks.

EGGS—Quiet and unchanged; demand light, both on storing and consumptive account; offerings fair. Loss off: Western at 16c. Southern at 9c.

EUTTER—Demand left for commercy, local retailers buying sparingly, while the country of the commercy of the country of th

Packing stock (10%)10%c stock) in demand and firm.

Creamery—Extra; 18%@19c; firsts, 16c; seconds, 15c. Country—Choice, 10%c; poor to fair, 69%c; greas, 26%%c. Dairy—Extra, 14@15c; other grades less. Ladle-packed—Extra, 13c; firsts, 15c. In a small way, %c per pound more is charged over the foregoing quotations for tub stock.

CHEESE—Jobbing: Twins, 9%c; singles, 9%c; Y. A., 10%c; long horns, 10%c; daisies, 10%c; New York, 10c. Limburger, 11c. Swiss, 15@16c. Brick, 11c.

LIVE POULTRY—Chickens—Average receipts, hens 7c; roosters, old or stagsy young, 3%c. Turkeys—Round lots 6%c. Ducks 56%c. Geese (top for full feathered) 4c. Spring chickens selling by weight logicopies of the price for fancy large; spring ducks 10c; spring geese 8c per lb.; gelons 31 per dox; squabs 75c.

DRESSED POULTRY—Iced stock, scalded and undrawn, with head and legs on: Chickens—Average 76. Ducks 7c. All poor stock, including sour, sweating, thin, scrawny, etc., nominal. Byring chickens 14616%c.

POF CORN—Latest sale per 100 pounds

coming crop. From appearances now, the acreage and, consequently, the yield, will be much smaller this year than last. Quotable, per ton, nominally: Common, \$10000; fair, \$5500; choice, \$65070-latter figure for bright green short brush.

SORGHUM—Poor to prime, 10c to 18c poor because of the protracted drouth. The corn crop may still be send but have

moninal.

STOCK PEAS-\$2.06@2.10 per bushel for whippoorwill and \$1.36 for clay.

KAFFIR CORN-Per 100 pounds at \$1.16 (21.30.)

SORGHUM CANE SEED-Latest sale at \$1.36 per 100 pounds.

BUCKWHEAT-Nominal at \$1.30@1.35

PER COUNTY Doubt has described by the described pasture are suffering from lack of rain. Canker worms have destroyed prospect for apple crop and badly injured the trees. Many 30.

J. W. LOCKHART.

May 30.

J. W. LOCKHART.

May 30.

J. W. LOCKHART.

FAMILY WASHER FREE

OM SO DAYS TRIAL. THE "1900" BEARING WASHER will do the family washing without builing, hand scrubwithout builing, hand scrubturolives on ballbearings. Simplest, easiest
run ning machine known.
No complicate
tirely new principle. Large
quantities of
ciothes are
washed clean
awing in wear
and tear alone
pays for machine
in ashort time.

CASTOR BEANS—Bid 11.30 per bushel for prime in car-lots; smaller lots and inferior less.

DRIED FRUIT—For prime apples there was a good demand and firm prices, at 46 44c for evaporated rings and 3c for sundivided quarters; but very few offering. All other descriptions nominal.

WHITE BEANS—Hand-picked peabens in a jobbing way from store at \$2.002.06 per bushel; screened at \$1.5021.9, per bushel; country at \$161.50. Lima beans at 74,68c per pound.

HONEY—Comb—Dark at \$610c; bright, 116124c; white clover, 14c—Inferior and broken less. Southern extracted and strained in barrels at 44,65c, and in cans at 5654c—California more.

ROOTS—Ginseng in larger offering and lower at \$3.75 to \$4.75; lady slipper, \$c; seneca, \$2c; pink, 14c; golden seal, \$8c; May apple, 24c; snake, 20622c; black, 34c; an of tree, 24c; blood, 24c; blueflag, 3c; skull cap leaves, 5c; sassafras bark, 4c; wild ginger, 4c.

BEESWAX—Zi'4c per pound for prime.

ap leaves, 5c; sassatras bark, 4c; wid-inger, 4c.
BEESWAX—27½c per pound for prime.
PEACHES—Receipts of poor quality nd sold at from 40c to 60c per peck box; ome 4-basket crates sold at from 75c@31 er 6-basket crate, and 4-basket crates at 0@65c. APPLES—Quote: Fancy repacked rus-ets \$5 and willowtwig \$5.50 per bbl. BLACKBERRIES—\$1.25@1.75 per 6-gal.

STRAWBERRIES—Home-grown sold mainly at 50@65c, but a few fancy sold as high as 75@96c, and small as low as 45c per 3-gal, tray; Arkansas sold mainly at from \$1@1.25 per 3-gal, crate for choice, but soft, held-over and small stock sold for less. Consignments, sold at from \$60 for less. Consignments, sold at from \$60 for less. Consignments sold at from \$60 for less. Consignments sold at from \$60 for less.

fancy. CHERRIES—Home-grown at 90c@\$1 per 3-gal. tray. Consignments at from \$ 2 for Kentucky and \$1.50@1.75 for Mis-souri.

LIVE STOCK.

LIVE STOCK.

HORSES—The week began with right liberal recelpts for the season, the total supplies for the auction comprising about 200 head. The shortage of country supplies was exhibited in another way by the general plainness of the quality, comparatively few consignments being of better than ordinary quality. To all intents the market was steady, particularly on good to choice Bastern chunks and drivers, the former selling readily at a range of \$100 to \$132.50, a range which was limited by the quality. The good driver kinds were scarce, most of them selling outload a factor, but it did not exhibit quite as strong characteristics as the early part of last week.

Horse quotations:

Heavy draft—Common to good, \$1000 flo; choice to extra, \$160200. Chunks, 1,150 to 1,350 pounds—Fair to good, \$30200; good to choice, \$1100155. Coach horses and cobs—Fair to good, \$135207; choice to extra, \$2006500. Horses for the South—Small, light drivers, fair to good, \$35600; choice to extra, \$2006500. Horses for the South—Small, light drivers, fair to good, \$35600; choice to extra, \$300600. Horses for the South—Small, light drivers, fair to good, \$35600; choice to extra, \$300610; choice to extra, \$100610; choice to extra, \$1156150. Business drivers—Fair to good, \$356010; choice to extra, \$4006100. Saddlers for Southern use—Fair to good, \$356010; choice to extra, \$4006100. Inferior horses—Common, small pluss, \$256150; choice to extra, \$400600. MULES—The only offerings in the commission division of the mule market were two loads of fairly good class medium sized ones, for which a steady bid was made early in the morning. The opening of the week was therefore on a parallel basis with the close on last Saturday. The general market among the dealing interests did not close as actively last week as in former weeks, only one car load going out to Eastern quarters. Some Southern demand developed, but was all general activity in the Southern trade. Apart from the Eastern buying, trade is slow. With the opening of the week there were not

ADDITIONAL LIVE STOCK MARKETS ON PAGE 4.

MISSOURI CROP PROSPECTS. NORTHEAST MISSOURI.

ADAIR COUNTY.—Oats and grass are adly damaged by drouth.

June 1. LEWIS SPRICES.

AUDRAIN COUNTY.—Everything is erry dry; have not had a good rain in 60 lays.

JAS. G. CRAWFORD.

SCOTLAND COUNTY.—We are having the worst drouth ever known here at this time of the year; no rain to speak of since oats were sown.

R. C. HOLLEY.
June 1.

LINCOLN COUNTY.—Hessian fles and chinch bugs are quite numerous in the wheat. Drouth is injuring oats and pas-tures. M. L. FINNERTY.

CLARK COUNTY.—Winter wheat is being severely ravaged by Hessian files, and the area harvested will be reduced one-half. Condition of oats and meadows is reduced by drouth and low temperature. Corn prospects are fair. Weather conditions somewhat unfavorable to all crops. May 31.

JASPER BLINES.

Higher.

POP CORN—Latest sale per 100 pounds at 60c for mixed to 11 for white.

BROOM CORN—Quiet, both demand and offerings being limited, while the trade is awaiting advices of the extent of the acreage sown and prospects of the comming aron. From appearances now, the

\$40@50; fair, \$55@60; choice, \$65@70—latter figure for bright green short brush. SORGHUM—Poor to prime, 10c to 18c per gallon. GRASS SEEDS—Some little millet and Hungarian offering, and selling on basis of 75c to \$1\$ for former and 70@60c for latter. But no offerings otherwise; prices nominal.

PIKE COUNTY.—Drouth has done great injury to oats, clover and pasture; wheat shows but little damage. J. J. PENIX. May 39.

Wheat in some localities is extra good; corn is in fine condition, but needing rain badly; pastures are poor from lack of rain.

May 30.

May 30.

LINN COUNTY.—I never saw a poorer crop prospect during a residence of 32 years in this state than at this writing; no rain for two months, excepting local showers. The fertility of the soil is not what it once was and a south is in consequence all the more during. May 30.

SHELBY COUNTY.—Winter wheat all right; oats good stand but very short—can't possibly be more than haif a crop; meadows and pastures short; corn fair stand and well worked. Weather very dry.

J. T. KEITH.

Toung clover and timothy are reported entirely ruined by dry weather.

May 31.

MARION COUNTY.—Up to May 25.

MARION COUNTY.—Up to May S years. One quarter of the acreage is full of Hessian files. Rye is immense. Oats are almost a complete failure; not more than one-half the usual acreage sown, and that will make a light yield.

June 1.

BOUTHWEST MISSOURI.

STONE COUNTY.—Weather very dry and all crops short. The oat louse is utring the oats.

W. B. COX.

May S

TANEY COUNTY.—Weather very dry and all crops short. The oat louse is not a complete failure; not more than one-half the usual acreage sown, and that will make a light yield.

TANEY COUNTY.—No rain for a month and crops and pasture being hurt. Apples have been rulned by worms.

June 1.

PUTNAM COUNTY.—The central part of the county had a little rain during the month, the west end less and the east end none. Corn planting finished about May 39; wire and cut worms have done some damage and replanting was necessary to some extent. Grass in meadows and pastures is short, and unless we get

CASTOR BEANS—Bid \$1.30 per bushel for prime in car-lots; smaller lots and in-ferior less.

DRIED FRUIT—For prime apples there was a good demand and firm prices, at 42 May 31.

MACON COUNTY.—Wheat and rye have been so hard hit by the drouth that the splendid condition of a month ago cannot be recovered if it rains within the next H hours. These crops and oats cannot at best make more than half a yield.

June 1. TAN HOCKENSMITH.
The continued cool and dry weather is hurting oats and pastures, and unless rain comes soon the former will be almost an entire failure. Corn is also suffering.

June 1. GEO. H. MARTIN.

June 1. GEO. H. MARTIN.

KNOX COUNTY.—Unless rain comes soon oats will be almost a total failure. Meadows and pastures are suffering for want of rain; the outlook failure. June 1. June 1. Georgia of the suffering for want of the suffering for the suffe

SOUTHEAST MISSOURI. IRON COUNTY.—Drouth affecting everything; meadows burning up.

June 1. W. H. DELANO. BUTLER COUNTY.—Clover and pas-ures are suffering from the drouth. June 1. H. L. ROHLFING.

WAYNE COUNTY.—Six weeks without ain and too dry for everything except wheat.

J. J. FREDERICK. rain and too wheat. June 1.

NEW MADRID COUNTY.—The peach crop which a few weeks ago promised to be the best in years has been almost ruined by insects. GEO. W. STEEL. May 30.

CARTER COUNTY.—No rain for six weeks and all crops are suffering. Ap-ples have been destroyed by worms that ate the blossoms. J. C. HOSKINS. May 31. MADISON COUNTY.—No rain for five or six weeks and weather cool. Crops in bad condition; clover beyond help. Poor stand of corn. J. W. BOLLINGER. June 1.

JEFFERSON COUNTY.—The long continued dry weather has cut down wheat, oats, meadows and pastures 25 to 50 per cent. A heavy hallstorm on May 25 deserved considerable fruit.

May 30. CHAS. J. DAVIDSON.

TEXAS COUNTY.—The six weeks' drouth and cold weather have injured the condition of oats and pasture, and unlers rain comes soon there will be no oats or hay. The fly is injuring some fields of wheat; others look healthy.

May 30.

JAS. M. LAIDLEY.

STE. GENEVIEVE COUNTY.-The STE. GENEVIEVE COUNTY.—The larger part of our county has had very little rain and the wheat has suffered in consequence. All crops will be shorter than last year. Clover looks well. Apple, peach and plum trees are loaded.

May 31. HERMAN KOEKLE.

FRANKLIN COUNTY.—Wheat looks very promising now, but will be injured badly if it does not rain soon. Oats are short, thin on ground and turning yellow. Clover very patchy and thin. Abundant crop of peaches. S. K. CALDWELL. June 1.

June L

CAPE GIRARDEAU COUNTY.—We have had dry weather since the middle of April and oats, clover and grass have made but little growth for the season. The weather has been too cool for corn to grow.

J. J. SAWYER.

ST. FRANCOIS COUNTY.—Dry weather has injured oats and grass. Clove was winter killed.

R. S. BANKS. was winter killed. R. S. BANKS.
May 31.
Wheat has been much hurt by drouth
and can't make more than two-thirds of a
crop. Oats are also damaged. We will
have a fine crop of peaches.
May 31.
A. D. POLITTE.

NORTHWEST MISSOURI.

NORTHWEST MISSOURI.

HOLT COUNTY.—The apple crop will be very light; the bloom fell off badly and the apples are now falling. Peach trees are full of fruit and doing well.

May 30.

H. A. DANKERS.

DE KALB COUNTY.—Wheat is far above the average and an extra good yi-is indicated. Oats are needing rain and will be rather short; clover is fair, thm-othy is short. J. C. BRADFORD. June 1.

CALDWELL COUNTY.—Crops are in good condition now, but a few more dry days will hurt them. G. W. DARETY.

June 1.

GRUNDY COUNTY.—All spring crops are being hurt very much by lack of rain; insects are injuring the corn. May 31.

GENTRY COUNTY.—Grass of all kinds is best for many years and only needs two or three rains to make a very heavy hay crop. Oats were sown too late to make a fine crop. O. T. ALEXANDER.

JACKSON COUNTY.—Oats will be almost a failure because of drouth and young clover has suffered. Wheat has formed no grain, due, it is thought by some, to light frosts about blossoming time.

HARRISON COUNTY.—Rain is needed very badly. Pastures and wheat are not showing the effect of dry weather and we have a fine show for wheat in this (the southwest) part of the county. Hay crop already shortened and oats short and thin on the ground. A great deal of corn had to be replanted. Prospect is poor.

June 1. F. B. BURRIS.

Jan damaged by Hessian flies and drouth. Weather too cool. Fruit falling off badly. May 31.

MARIES COUNTY.—Oats will be a complete failure unless it rains soon. Wheat can't do much longer without rain. Mead-one for the county was a short—never poorer.

May 30.

SALINE COUNTY—All groups are needed.

June 1. F. B. BURRIS.

DAVIESS COUNTY.—Only two light showers in six weeks and the result is that the bright prospects of a month ago are gone. Oats and meadows will be less than half a crop. Apples have been ruined by worms. Wheat looks well yet, but another dry week will hurt it.

There is a poor stand of corn and many will have to replant. The outlook at this time is bad.

June 1.

LIVINGSTON COUNTY.—On account of late spring only a few oats were sown and the condition of these is generally poor.

H. C. COX.

and the condition of these is generally poor.

June 1.

Continued dry weather is cutting the oats short; corn is looking well. Canker worms are ruining the apple crop.

May 30.

RAY COUNTY.—Oats, meadows and pastures need rain; unless rain comes soon there will be a very small crop of oats.

May 31.

Too dry for timothy; crop will be light. Blue grass and clover doing well. Corn is a little backward on account of dry weather. Worms are damaging the apple trees.

May 31.

RAY 11.

CARROLL COUNTY.—We had too much rain up to April 15, and none since then. The drouth is cutting crops short.
May 30.

C. L. BOOKER.
Wheat promised an abundant crop early in the season, but later has been seriously affected by drouth. There will be no oat crop in this county this year. Corn is not very promising.

June 1.

SILAS C. BALLARD.

TANEY COUNTY.—No rain for a month and crops and pasture being hurt. Apples have been ruined by worms. May 31.

HENRY COUNTY.—Corn is all planted, but it is late and now so dry it can't come up. Weather is too cold for all crops, and prospect is that they will be short.

J. M. PREZINGER.



DADE COUNTY.—Bugs, frost and frouth have caused a general decline in rrop conditions during the month of May. May 30.

O. H. BARKER.

May 39.

O. H. BARKER.

OZARK COUNTY.—Dry weather has checked the growth of all crops. Portions of the county have had rain.

May 30.

L. E. BROWN.

L. E. BROWN.

BATES COUNTY.—Continued dry
weather in May has rulned the oat crop
and cut short meadows and pastures.
There is a fair prospect yet for apples and
peaches.

J. T. WHINERY.

BARRY COUNTY.—No rain since corr was planted and there is not more than half a stand.—Meadows, oats and pas-tures are nearly ruined. June 1. W. I. BARTMERS.

NEWTON COUNTY.—No rain from April 15 to May 17 retarded growth of crops, and the drouth with green lice and rust are playing havor with wheat and oats.

OZIAS RUARK. June 1. LAWRENCE COUNTY.—Wheat is fall-ing because of chinch bugs, drouth and rust. Oats are only moderate; clover and spring pastures are held back by lack of rain. Fruit promises well yet. June 1.

ST. CLAIR COUNTY.—No rain for several weeks, and weather cool. Corn is very backward. If it does not rain soon oats and wheat will be cut short one-half. May 31. JOSEPH N. STEPHENSON.

May 31. JOSEFIA N.

JOHNSON COUNTY.—Wheat was never finer, but is slightly affected by lack of rain—safe for a heavy crop, however.

Oats and pastures standing still for want of rain. Fruit of all kinds very promisof rain.

JASPER COUNTY.—Rain is needed very badly; oats are almost a complete failure; pastures are getting very short. Wheat is very uneven, yet I expect a pretty good crop; the injury from the fly is not yet fully known. Only a very moderate setting of apples. Weather is very cool. Corn is small but clean and in good condition for rain and warm weather.

May 31. May 31.

CEDAR COUNTY.—Wheat, oats and meadows will be very short on account of dry weather. Apples have dropped to about half a crop. We need rain very much.

May 31.

A. F. RETHEMEYER.

much. A. F. RETHEMEYER.
May 31.
Our large acreage of flax is fine. Too
dry for oats. Up till a week ago pastures
were fine, but dry weather is getting
them. We have about our usual acreage
of castor beans.

O. T. HUFF.

June 1.

DALLAS COUNTY.—Weather has been dry and cool, and the surface of the ground looks as if it had been kiln dried. Oats and meadows will be as near a failure as was ever the case in this part of the country. Most of the early planting of corn had to be replanted, and is now small and spindling, with a bad stand. We had a frost on the 23d inst. A green, black-headed worm is destroying the apples. We never had this worm here until last year.

May 30.

CENTRAL MISSOURI.
DENT COUNTY.—Wheat has been badly damaged by Hessian flies and drouth.
Weather too cool. Fruit falling off badly.
May 31.

JAS. A. HOBSON.

May 30.

SALINE COUNTY.—All crops are needing rain badly, and especially corn, which is backward. Many farmers have a poor stand and are replanting.

May 30.

J. E. EDWARDS.

May 30.

J. E. EDWARDS.

RANDOLPH COUNTY.—Oats and meadows are practically failures on account of drouth. Percentages will be further reduced unless rains come soon. June 1.

G. L. JOHNSON.

BENTON COUNTY.—Only one light shower in six weeks; meadows are very poor and pastures are drying up. Wheat will suffer, oats be of little value and some corn ground will not be planted unless rain comes soon.

J. J. HART.

June 1.

GASCONADE COUNTY.—Wheat, clover, timothy and pastures have suffered seriously from drouth. Some farmers are waiting for rain to enable them to plow their corn ground. Hail did considerable injury.

June 1.

HENRY GRASS.

COLE CO., MO.—No rain to do any good since April 25, and everything is suffering. Corn is small and much not up yet. Pastures look as though they had been burned over. The present prospect is for short crops of all kinds. H. B. BODE. May 39.

May 30.

MILLER COUNTY.—We are having a very serious drouth in this section; there has been very little rain for six weeks and everything is suffering for the want of it. It has not been so dry in May for 30 years. Pastures are poor and stock is suffering. The prospects are gloomy.

May 30.

GEO. R. WEEKS. May 30. GEO. R. WEEKS.

CALLAWAY COUNTY.—A six weeks' drouth has nearly ruined oats, meadows and spring pastures, and very much injured what promised to be a No. 1 crop of wheat. Should it not rain so as to thoroughly wet the ground within the next two weeks, oats and meadows will be an entire failure.

May 31.



32 or 38 Caliber. 5-Shot Chamber. 3 in. Barrel. Nickel-plated Finish. Hammer, \$4.50 Smallestracharge Hammerless, 5.50 the fine for the first of the first

Iver Johnson's Arms & Cycle Works, Fitchburg, Mass., U.S.A.
Manufacturers of the well-known Feer Johns
Bicycles, Guns and Revolvers.
N. Y. Salesrooms, oo Chambers Street.
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PETTIS COUNTY.—Drouth unbroken; it is now six or seven weeks since an inch of rain has failen in this vicinity. Heavy frost May 28; froze beans and corn in places. Some weeds a foot high frozen to the ground. W. D. WADE.

places. Some weeds a foot high frozen to the ground. W. D. WADE. June 1. Dry weather has injured the crop pros-pects. The fruit was hurt by frosts. May 30. JOHN THOMPSON.

CAMDEN COUNTY.—No rain to amount to anything since April 16; wheat turning yellow prematurely; oats nearly half killed on upland, and remainder almost past redemption. Apples and peaches failing badly, but enough peaches by yet. Corn two-thirds planted; ground to hard to work now. All spring sown clover is dead.

May 2.

All crops have suffered badly for lack of rain. Frost on 26th inst. did much damage to tender vegetation. Total failure of all crops imminent if rain does not come very soon on all except best bottom land.

S. W. CROCKER.

ome very and. May 31.

MISSOURI WEATHER AND CROPS.

The U. S Department of Agriculture, Climate and Crop Bulletin of the Weather Bureau, Missouri Section, for the week ending June 2, 1901, is as follows:
Cool, dry weather has continued during the past week and over a large part of the state the drouth has now become one of the severest ever known. Unless good rains fall soon wheat, oats, meadows and gardens will be almost total failures in many counties. In most of the northwestern, many of the northeastern and some of the central and southern counties wheat still looks well and promises an average, or more than an average yield, provided it receives sufficient moisture to enable it to fill, but in many of the central and southern counties the crop has been shortened one-fourth to one-half by average, or more than an average yield, provided it receives sufficient moisture to enable it to fill, but in many of the central and southern counties the crop has been shortened one-fourth to one-half by the drouth and insects, and in some districts will be nearly a failure. Much damage has been done by fly and chinch bugs in portions of the eastern and southern sections, and rust has appeared in many of the southern counties. In a few of the southern counties some fields have been cut for hay. Harvest will begin in the extreme south about the lêth. In a very few counties oats still promise a good crop, the most favorable reports being received from the northwest section. In a very few counties oats still promise a good crop, the most favorable reports being received from the northwest section. In any counties practically a failure. In some localities they are heading only 4 to 6 inches high. Meadows promise well in most of the northwestern and a few of the eastern and southern counties, but in a majority of the northeastern, central and southern counties the outlook for the hay crop is extremely discouraging. Army worms have done much damage in a few of the southeastern counties. Clover has stood the drouth much better than timothy. Some clover has been cut. Pastures are becoming dry and short in many counties and in localities stock has been turned on meadows. Water is also becoming scarce in places. Corn is looking well in a few counties, but is generally uneven and small for the season, and has made but little progress. Much of the seed failed to come up and in some of the northern and eastern counties cut worms, moles and mice continue very destructive. In a few counties corn on low lands was severely nipped by the frost of May 28, as were also beans, potatoes, and other tender vegetables. Cotton is generally retarded by the drouth and cool nights, Flax has also suffered severely from the drouth and some fields have been plowed up. There is complaint that apples are dropping, and in some districts the cr

PHELPS COUNTY.—Six weeks' drouth and cool weather are retarding all crops. June 1.

We are glad to call attention to the advertisement of J. A. Spencer, which appears elsewhere in this issue. Mr. Spencialiure. Wheat will not make haif a crop. Large per cent of the corn is lying in the ground as dry as when planted. June 1.

R. N. GOUGH.

RUPTURE Quickly and CURED Permanently CURED at home; at a small cost. No operation, pain, danger or detention from work. No return of Rupture or further use for Trusces. Easy to use; Thousands cured. Booklet, explaining method, free the asking. W. A. LEWIN, M. Do.: Lawis Ridge. 211 N. 7th Street, St. Louis, Mo.

THE MIZPAH PROSPECTING AND DEVELOPING COMPANY

THE MINTAH PROSPECTING. AND DEVELOPING COMPANY Will give this opportunity to a limited number of investors. We have made arrangements to send out a party of prospectors who are personally known to the management to be unexcelled in their line, under the direct management of a well known geologist and mining expert, to thoroughly prospect an unusually well mineralized ferritory. After locating the ore bodies and deciding on the list to be developed, a non-assessable stock company will be incorporated under the laws, to equip and develop same. In order to pay the expenses of this prospecting 500 shares only will be sold at \$5 cach. Each share to be exclauged for 1,000 shares of the incorporated non-assessable company, after which treasury stock in the new company will be sold at \$5 or 10 cents a share for equipment and development purposes. Investors will realize the fact that they are getting for each \$5 share in the prospecting company what will later cost the investor in the treasury stock of the incorporated company \$50 or \$100.

Send orders at once as only 500 shares will be sold, after allotment of which all over subscriptions will be returned to sender. The first 500 received will get the advantage of this unusual opportunity. Address and make all orders payable to

L. C. NICKERSON, Secretary,

L. C. NICKERSON, Secretary,

Rooms 4 to 8, 1638 Curtis Street, Denver, Colorado,

On orders for five shares or over monthly payments can be made of \$i\$ a share

nth, if preferred.

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